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ANCILLARY DATING MATERIALS FROM FUSTAT

By GEORGE T. SCANLON

DURING EXCAVATIONS AT FUSTAT IN OLD CAIRO by the American Research Center in Egypt in 1964, 1965, and 1966, it was discovered that certain architectural features yielded comparatively precise chronology when the undisturbed fill beneath stone floorings and within intricate sanitation systems was investigated scientifically.¹ Some pits were estopped and the attendant canals filled in; these and foundation remnants were combined with dirt, crushed sandstone from the *galal* (this combination of pressed earth and crushed stone is called *dakkah*) and any debris at hand: the whole floored and built upon in a later period. As new domestic and industrial complexes were built upon the remains of others, the base of the newer building was necessarily higher, and this required heightening the streets, impasses and cul-de-sacs which serviced the city, a process accomplished by adding layers of earth, crushed stone and local debris. Finally the lines of later rooms and street paths did not conform to earlier ones, and more often than not the remains of the foundations of the latter appeared within the fill of the former, e.g., Tulunid within Fatimid, or Fatimid sub-

structure in Ayyubid buildings reared after the destruction and/or abandonment of Fustat in 1168.

But most interesting of all was the phenomenon of baked bricks laid in mud mortar, traces of which were to be found throughout the larger area of Fustat excavated in 1965 and 1966. Here, by appeal to coins, glass weights and early lead-glazed pottery with stamped or moulded designs, one could establish a pre-Tulunid, usually late eighth-century dating. The same mode of appeal and the same dating range was established when street *dakkahs*, sanitation pits and canals were stratigraphically analyzed: the lowest strata of the streets proved to be eighth century as were the contents of pits and canals filled and covered beneath Tulunid structures.² Surprisingly in all these instances materials which had hitherto been considered quite heterogeneous in Egyptian Islamic archaeology gained chronological significance and in many instances proved to be a means of dating in the absence of other surer datable materials (viz., coins, weights, glass, metals, and ceramics). It is the purpose of this paper to analyze three such ancillary materials.

¹ The Preliminary Reports of these excavations are being published in the *Journal of the American Research Center in Egypt* by the author of this article (that for 1966 will be in collaboration with Dr. Wladyslaw Kubiak, Assistant Director of the Fustat Expedition). That of 1964 has appeared in *JARCE*, IV (1965), pp. 7-28 and pls. I-XV and will hereinafter be referred to as *Fustat '64*. The Report of the much more important 1965 season appeared in two parts, Part I in *JARCE*, V (1966) and will hereinafter be re-

ferred to as *Fustat '65-I*; Part II in *JARCE*, VI (1967) and will hereinafter be referred to as *Fustat '65-II*. It is contemplated publishing the 1966 Preliminary Report in *JARCE*, VII (1968) and to conduct a fourth and final season at Fustat in the autumn and winter of 1968.

² See *Fustat '65-I*, Section II *passim* and *Fustat '65-II*, Section III *passim*. Also *Fustat and the Islamic Art of Egypt*, Archaeology, vol. 21, no. 3 (June 1968), pp. 188-95 (hereinafter referred to as *Contents of Pit. B*).

A. *Terra-cotta Figurines*

The fill in Pit B in XVI-1' (see *Fustat '65-I*, Plan II) was undisturbed for seven of its seven and a quarter meters depth. Within were a capacitance jar with a seal of Salama, Prefect or Finance Director of Egypt ca. AD. 762-774 and a green glass coin weight struck in the name of Abd-al-Malik ibn Marwan, governor of Egypt sometime during A.D. 745-750. Thus the objects found within are clearly datable. Among them were two terra-cotta figurines.

One of these was of very coarse, poorly-baked clay with an eroded, rather oxidized surface. It was of a seated woman, whose head was missing, holding a baby against her left breast. The bottom of the torso was flattened so that the statuette would stand. No legs were apparent or even indicated by modelling, and the babe lacked any but the most rudimentary definition, seeming to be wrapped in swaddling and, when the figures were seen from the side, clearly suckling.³ Again there was nothing in the modelling to suggest that the right breast was covered. Hence we may take it that the roughly carved adult female was nude. The present height is 9 cm. and the maximum width across the arms akimbo is 8.5 cm.

The second figure was of a seated torso, again with head missing. It was clearly female with the arms held very slightly out from the body, and the hands meant to be clasped in front (see *fig. 1a*). There was no modelling of the legs, but there was a slight indication of buttocks. The arms are par-

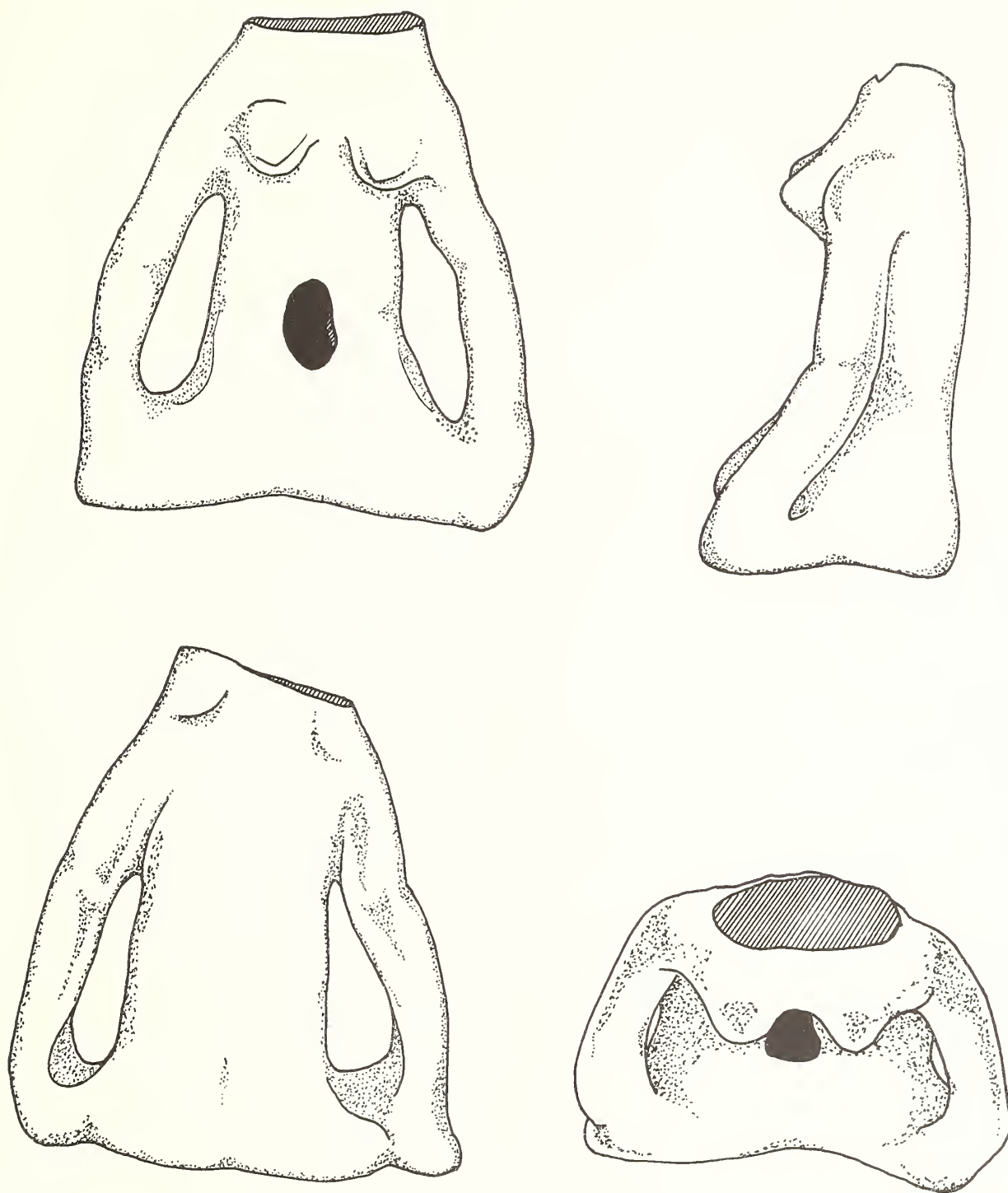
ticularly thick in relation to the slimness of the torso. The surface is exactly akin to that of the suckling mother. (It is difficult to determine whether the pieces were once painted, for the minute traces of white could be the result of a chemical process. Both pieces were exhumed from beneath 5.5 and 7.0 meters.) Its present height is 6.5 cm. and the maximum width across the arms is 6.5 cm.

Two other examples of the nude female came from related places in Fustat-B: one in the area of the fountain-basin system and from a foundation level associated with mud mortar.⁴ Here the modelling is much finer. Again the head is missing, but the arms are more clearly held out from the body and rest on extended thighs, roughly indicated at the front of the base as are the buttocks at the rear; and clearly the arms are more proportionate to the torso. There are no outlines of hands or fingers, and the arms are fully joined to the torso at hip level to form a uniform base for the figure. The breasts are small but well-defined and the neck excessively thick. No navel is indicated. The present height is 7.5 cm. and the maximum width across the arms is about 7 cm.

The other and best preserved example of the nude female is shown in *text fig. 1*. It was found in 1966 within an estopped pit about 25 meters to the NW of Pit B and serviced by the same street. Once more the head is missing, but the modelling of breasts, arms, legs, and buttocks is quite clear. However this time we have a rather enlarged navel, sufficient to indicate that the interior of the figurine is hollow. Its

³ Illustrated in *Contents of Pit B*, fig. 10, p. 192.

⁴ It is illustrated in *Fustat '65-II*, Plate IIIa and is discussed in section III, *passim*.



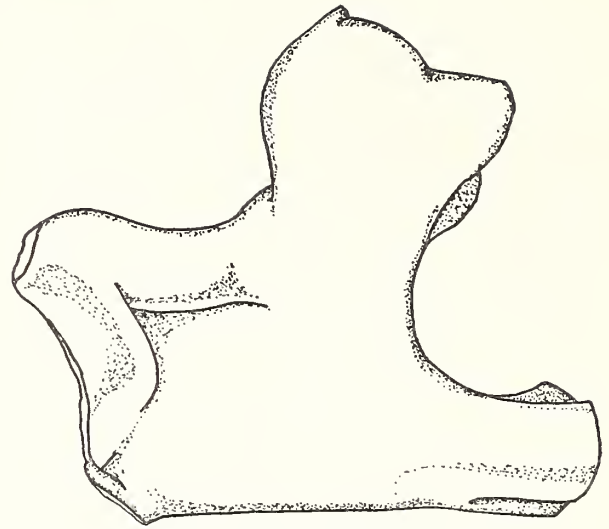
TEXT FIG. 1.—TERRA-COTTA FIGURINE. CA. A.D. 800.

present height is approximately 9 cm. and the maximum width across the arms is 8.5 cm.

These four examples of the seated nude female can be placed in an early eighth-century context. From what do they derive? Most clearly they are late echoes of the Isis and Aphrodite figures, all of terra cotta, which were nude and seated; these were produced prolifically and in all variations throughout the Ptolemaic period and undoubtedly continued to be crafted right through the Byzantine occupation of Egypt. They echo, both roughly and in the most etiolated fashion, the enduring, recidivist tendencies in the life of the common people of Egypt. But what was formerly a cult object or a religious memento within a tomb has now become a doll, discarded when the head was lost. Even the first figure of the child suckling seems to derive more from the naked Isis feeding the babe Horus than from the intermediate genre of Mary suckling Jesus, simply because in the latter case, the mother figure is clothed and only the breast given the child is exposed.⁵

Another type of terra-cotta figurine, a very roughly modelled horse and rider, showed up during both the 1965 and 1966 seasons. The two best examples are shown in *fig. 1c* and *text fig. 2a*. In both, the heads of horse and rider are missing. The former

⁵ In another part of Fustat-B and again associated with mud mortar, the head of such a figurine was found (see *fig. 1b*). It was very crudely modelled and its triangular shape and thick neck harked back to the genre of female sphinx heads. For examples of what the complete statue looked like cf. Wilhelm Weber, *Die Ägyptisch-Griechischen Terrakotten* (Königliche Museen zu Berlin, Mitteilungen aus der Ägyptischen Sammlung), II (Berlin: 1914), Taf. 23, nr. 231a and b, and nr. 233. For seated nude female figures with raised



TEXT FIG. 2a.
TERRA-COTTA FIGURINE. CA. A.D. 800.

was found beneath the paving of a room associated with a Tulunid domestic complex and where traces of mud mortar were discerned on the *gabal*. The tail of the horse is indicated, and both the arms and legs of the rider are sketched, lacking hands or feet. Two of the horse's hooves are missing, but it is quite obvious that the statuette was meant to stand on four legs, modelled very thickly and without details. The present maximum height is 8.5 cm. and the maximum length is 8.5 cm.

The latter was found in the same pit as the seated female nude in *text fig. 1*. The horse lacks a tail, though one is indicated,

arms cf. *ibid.*, Taf. 22, nr. 219 and 220. Our head most clearly relates to that shown as an *Oransfigur* in Josef Strzygowski, *Koptische Kunst* (Catalogue General des Antiquités Egyptiennes du Musée du Caire), Vienna (1904), nr. 7131, which is dated roughly to A.D. 600. However it lacks the holes shown in the examples from the Berlin and Cairo collections, confirming the suspicion that it and the other pieces herein discussed were toys, probably dolls.

and its rear legs are shorter than the fore ones, and the hind quarters are so modelled that one is led to believe that the animal is about to rear. The rider lacks legs but the arms are up close on the horse's neck. Its present length is 8.5 cm. and its maximum height is 9.5 cm.

In both cases there is no break between the horse's neck and the rider's body, indicating that the mount is in such motion that its rider is forced close against it. No reins are indicated, and the overall effect, particularly of that in *text fig. 2a*, is grotesque in the extreme. They are again pale imitations of older models: of the child Horus mounted upon a horse, evolving from votive figures to children's toys.⁶

This particular type of terra-cotta figurine was not encountered in any later strata, and when rough small-scale sculpture is yielded at Fustat (at least in the controlled excavations carried out by me) it is of two types: of sandstone and of zomorphic handles, either glazed, slip painted or unglazed, and always within the fill of disturbed mounds rather than in undisturbed conditions as noted above. It seems safe to conjecture that the type of figure sculpture under discussion ceased to be made after ca. A.D. 800 and thus becomes a source of dating for early Egyptian Islamic archaeology.

Why was so seemingly harmless a product later denied production? Quite possibly

the new Abbasid rulers were less permissive than those of the preceding century and discouraged any suggestion of pre-Christian "idolatry" in the lives of the common people. Or, too, sculpture as a whole may have seemed pernicious to the more orthodox Muslims who, now ruling Egypt, sensed perhaps how much it had been related to votive worship. It seems to have taken half a century to stamp out completely in the capital (no doubt the use of small sculpture as toys continued unabated in the provinces), and that the common art of sculpting toys never really died out is attested by the amazing incidence throughout Fustat and in most excavated sites of Egypt and Syria of the so-called "Coptic dolls."⁷

B. Soapstone Fragments

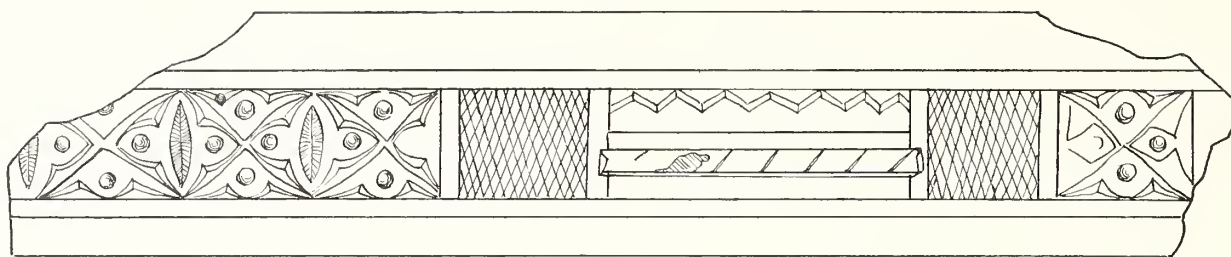
Throughout ancient times various domestic utensils were made in Egypt from a soft, grey stone, more metamorphic than sedimentary. It takes the form of slate, steatite or schist, but is invariably referred to in Arabic as *rigām*, or soapstone.⁸ Under the same conditions as noted for the figurines, soapstone objects were discovered in datable strata.

Two fragments found in Pit B are particularly indicative: one is of half a small flat-bottomed bowl, not exactly symmetrically carved, with a most rudimentary handle and with a design of simple cross-hatching incised externally. Such a piece would indicate that the almost "laminated" consistency of the material dictated

⁶ The originals from which our examples derive can be seen in Weber, *op. cit.*, Tafs. 8 and 9, where Horus is seen riding a ram and a goose as well as a horse. It is true that in the Christian Era, this iconographic device had metamorphosed into Christian warrior-saints astride rearing horses, but once again it seems more than probable that our examples echo the earlier significance.

⁷ See Excursus.

⁸ For a discussion of the variants and known quarries see A. Lucas, *Ancient Egyptian Materials and Industries*, Fourth edition revised and enlarged by J.R. Harris, London, 1962, pp. 419-428.



TEXT FIG. 2b.—EXTERNAL DECORATION (EXTENDED) OF SOAPSTONE BOWL. CA. A.D. 850.

the course of the carving (hence the variation of height) and the surface did not permit any alluring decoration. Yet the other piece, found slightly below it in the pit, shows just the opposite. It is difficult to decide just what function this fragment performed on the object, but there is no doubt that the carving is very fine where the material is "hollowed out" to form a rough bend of the rim. There is a pierced decoration of circles and drops, uniform ridging below the rim, and incised empanelling (see *text fig. 3*).

Other types of bowls turned up in undisturbed fills wherein were found traces of mud-mortar construction. One (see *fig. 1d*) has rudimentary handles cut about the rim and, between these and ribbing at mid-

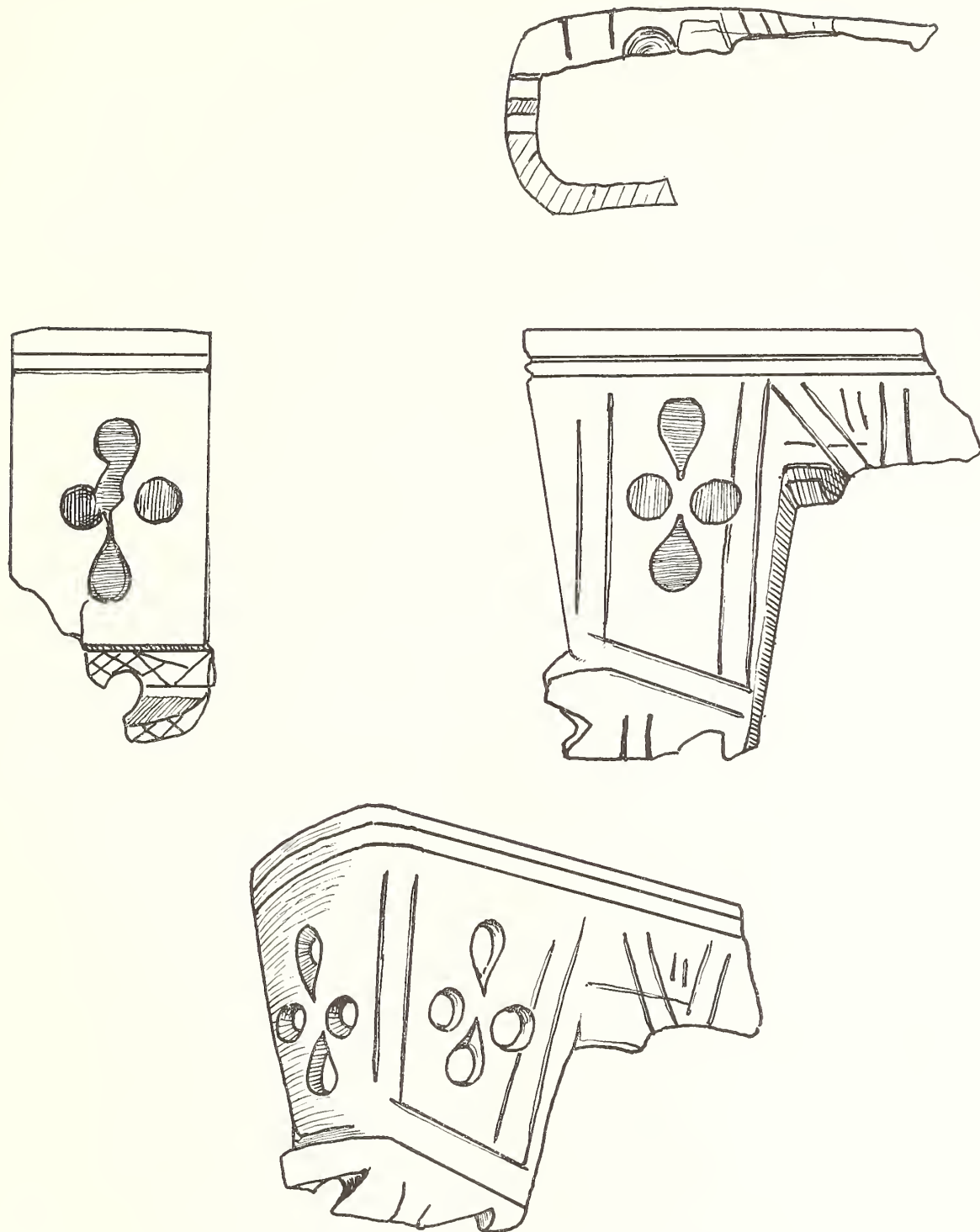
height externally, a simple but quite stylish geometrical banding echoing a very early Egyptian motif. Another originally had four legs and a handle (see *fig. 2a*); here the decoration is quite straightforward—vertical and horizontal chevron band carved in relief between bands of simple incised cross-hatching.⁹ Still another type of relief design carved externally around a bowl can be seen in *text fig. 2b*. Here again one has the rudimentary carved handle and the cross-hatching and chevron, but this time combined with a frieze of quatrefoils. A very simple, shrewdly carved bowl with four legs, so worked that the original piece must have had a square section, came from the lowest part of a trench dug for sound-
ing during the 1965 season (see *fig. 2b*)¹⁰

⁹ For a specimen with a handle cf. Friedrich Sarre, *Keramik und andere Kleinfunde der islamischen Zeit aus Baalbek*, Baalbek, III (Berlin and Leipzig: 1925), p. 141 (nr. 126) and *fig. 89*. Sarre gives no exact dating for the piece, saying simply that such wares were found all over the Islamic Near East from the 9th to the 14th centuries.

Soapstone handles were found throughout the excavations in all three seasons. It is not hard to deduce that, because of the crystalline nature of this grey stone, weight in the bowl induced fractures and eventually the handles broke. The prototypes of these handles (derived from the Christian

period) can be seen in Oskar Wulff, *Altchristliche und Mittelalterliche ... Bildwerke*, Berlin, 1909, Taf. IV, nrs. 150–154.

¹⁰ Cf. Plan I, *Fustat '65-I*, trench in I-10. South from this point in 1966 the whole area was trenched and/or excavated, and the results prove a contiguous occupation with that uncovered in 1965 and a parallel chronology. However it is difficult to prove absolutely that this bowl came from an undisturbed level. When the entire quadrant is opened, its exact dating can be established. Suffice it to say here that I surmise it is of the same dating as the rest of the pieces under discussion, i.e., ca. A.D. 700–900 and not subsequent.



TEXT FIG. 3.—FRAGMENT OF SOAPSTONE VESSEL. A.D. 750–800.

and indicates the variety of shape evolved by the Fustat craftsman.¹¹

Another type of soapstone object found in abundance throughout the excavated areas of Fustat was the simple boat-shaped lamp. The three examples shown in *figs. 2c* and *d* and *fig. 3* were all found either within undisturbed pits or within the foundation filling of Tulunid buildings. The first is almost the exact duplicate of one excavated at Hira and assigned tentatively to the eighth century¹² and the other two are like Coptic examples cited by Wulff.¹³

If one compares our examples with great pieces of soapstone carving in pre-Islamic Egypt there is no doubt there has been a diminution of artistic exercise. But

more importantly, if the results of three seasons' work be any guide, the manufacture of soapstone articles seems to have died out about A.D. 900, for no objects of this material were found in areas which from other evidence are provenly Fatimid and later. Indeed the majority of objects discussed here came from fills of buildings possibly anterior to Tulunid occupation. Thus until evidence to the contrary is established, it seems safe to think of soapstone as a dating material for early Egyptian Islamic settlement. It presents a continuation of older domestic customs and variety of execution, but one foresworn in favour of ceramics or because the source of supply had dried up.¹⁴

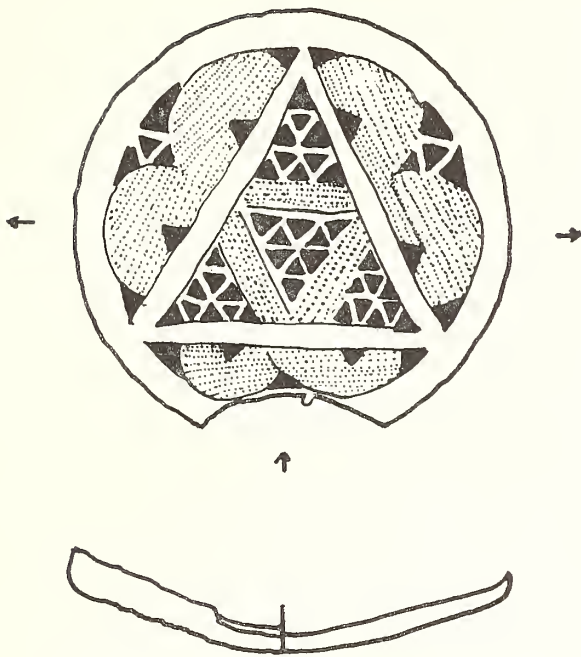
¹¹ A more intricate example of a bowl carved from a piece of soapstone with a rectangular section can be seen in Zaki Muhammad Hasan, *Atlas al-funun al-zaghrafiyah wa al-tasawwir al-Islami*, Cairo, 1956, p. 256, fig. 783: bowl in center of bottom row. These pieces are simply assigned to the Middle Ages; yet, if their provenance be Samarra, they may safely be assigned to the 9th century. However, unlike our bowl, this one is flat-bottomed. It, too, lacks any significant decoration; its aesthetic quality resting in the prime carving.

¹² Presently in the Ashmolean Museum in Oxford, and inventoried as 1932: 76. Six other fragments from the same excavation are to be seen in *fig. 5* and *text fig. 7a*, and indicate how different the mode of design between Egypt and Mesopotamia at about the same time. It is interesting that the motif of concentric circles here seen on Mesopotamian soapstone does not occur on Egyptian samples, whereas it is a key design on all other materials during the Coptic period, especially on bone, cf. Strzykowski, *op. cit.*, Taf. XX and Wulff, *op. cit.*, Taf. IX–XI and XXII–XXVI.

¹³ *Op. cit.*, Taf. VI, nrs. 157 and 156. Nr. 158 is rather like our first example and variants of all three can be seen in Zaki Hasan, *op. cit.*, same figure cited *supra*: three examples in the middle

row. Both in the upper and lower rows are more complex examples. The shapes of all have been encountered in pre-Islamic Egypt, but always either in bronze or ceramic. But like our examples these Iraqi lamps seem to lack any significant external incised or relief decoration, as does the one found at al-Mina and which Lane assigns to "ninth century or later": Arthur Lane *Medieval finds at Al Mina in North Syria*, *Archaeologia*, LXXXVII (1938), p. 74, fig. 14.

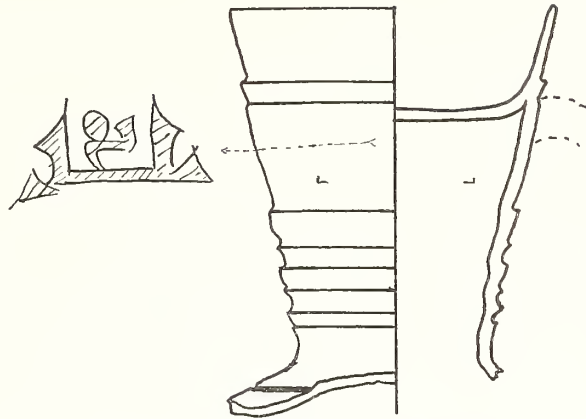
¹⁴ If this latter supposition be correct, the situation in Egypt is unique. At excavations carried out at Siraf on the Persian Gulf, soapstone (steatite) objects were found in strata as late as A.D. 1100, and the production of Syria and Mesopotamia probably carried on also until that date. The results of the work at Kom al-Dikka at Alexandria, where the stratigraphy is so much firmer than at Fustat, may point to a continued use of soapstone after an apparent decline in the capital. To date no contrary evidence has appeared. It is also interesting to note that the designs on soapstone objects are very much like those on stamped and moulded lead glazed wares and on the earliest types of jugs and bottles with incised designs external. Such objects have been proven to be of 8th–9th century manufacture at Fustat: *Fustat '65-I*, pp. 101–103.



TEXT FIG. 4 a.—FILTER. BEFORE A.D. 800

C. Water-bottle Filters

Anyone who peruses Pierre Olmer's great catalogue of Egyptian Islamic filters will be impressed by the manner in which this simple utilitarian device was raised to the level of a various art by the Egyptian craftsman.¹⁵ Olmer limited himself to the collection in the Islamic Museum in Cairo, secured by gift, purchase, or from the various excavations carried out in Egypt, most particularly at Fustat, by Aly Bahgat. In no instance did he have any exact archaeological evidence and only rarely did a piece yield inscriptional guidance. Nevertheless, he constructed a wide-ranging and quite shrewd typology based almost entirely on stylistic motifs and modes of manufacture. Even his guesses have an air of security, and when completely baffled he admitted as much.



TEXT FIG. 4 b.—FILTER. CA. A.D. 850.

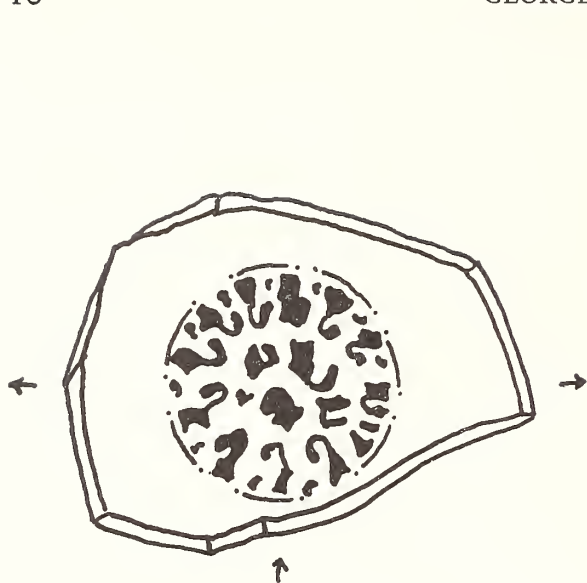
Luckily the excavations which form the basis of this paper have proven him correct on archaeological grounds. The undisturbed contents of two sanitation pits contained irrefutable evidence for now assuming his spectrum of Fatimid types to be almost entirely correct.¹⁶ It is rather our purpose here to see from comparable evidence if we can allow his Tulunid types to stand as datable criteria and possibly to extrapolate this surety to the pre-Tulunid era.

The very large filter discovered in Pit B¹⁷ is datable to the last half of the eighth century. There is no example like it in *Olmer*. However a technique visible on this filter, viz., dotting and striating the external surface left after the overall design was cut in the clay, is parallel to another filter

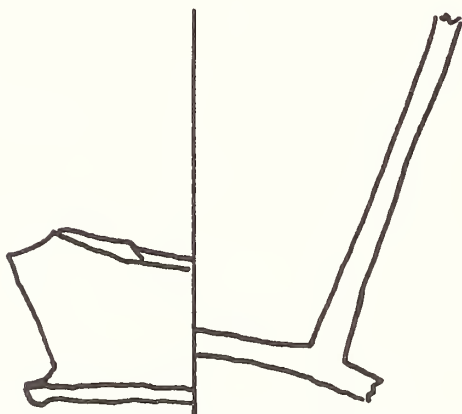
¹⁵ Pierre Olmer, *Les Filtres de Gargoulettes*, Cairo, 1932 (hereinafter referred to as *Olmer*).

¹⁶ See *Fustat '65-II*, "B. Stratigraphical Evidence," *passim*.

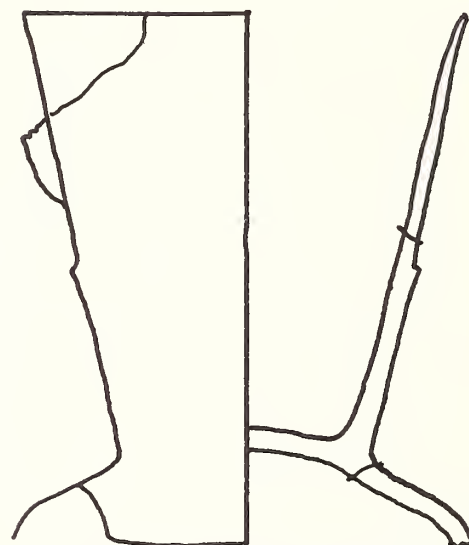
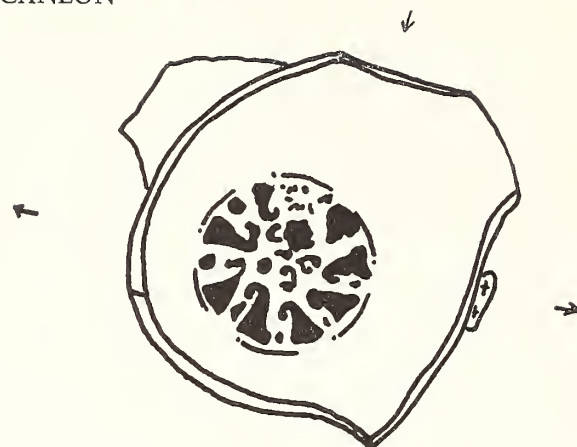
¹⁷ See *Fustat '65-I*, fig. 11 c. This was the largest filter found in the three campaigns. The inner diameter of the bottle to which it was fitted had to be at least 15 cm., the maximum present diameter of the filter.



TEXT FIG. 4 c.—FILTER. TULUNID.



TEXT FIG. 4 d.—FILTER. TULUNID.

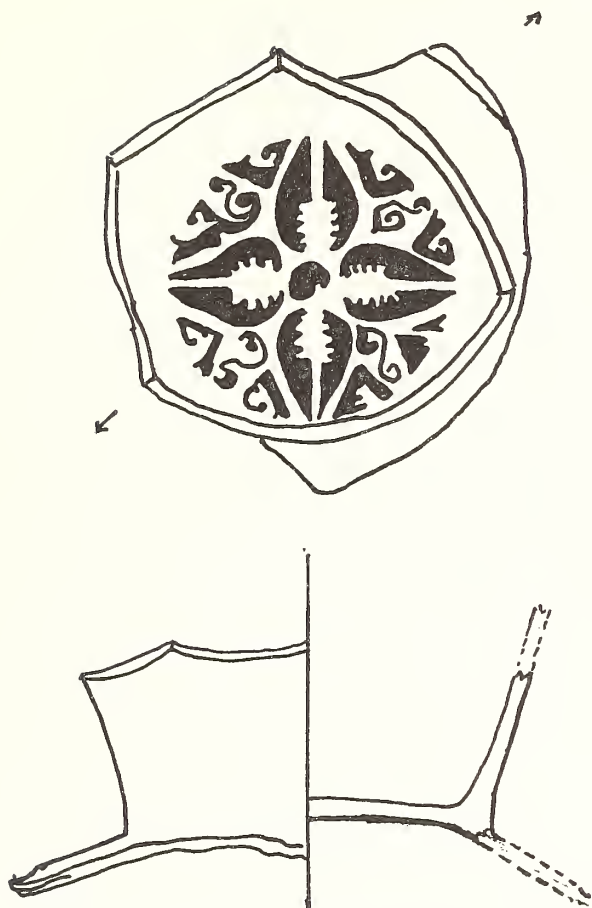


found elsewhere in the excavation and duplicates one in *Olmer* which he was unable to attribute to any epoch.¹⁸ Another example (see *text fig. 4 a*) seems a rich development of design in this manner and the

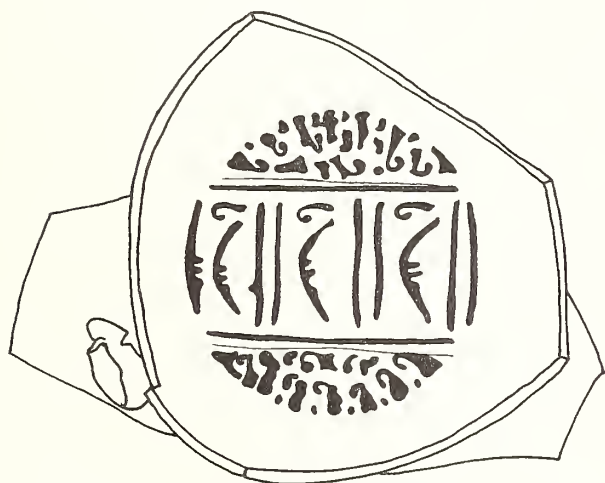
¹⁸ Cf. *Fustat '65-II*, fig. 2 b and *Olmer*, Pl. LXXIX-A. It is clear from the latter photograph that this filter was inserted at the top of the neck of the water-bottle and is slightly concave, as is the larger one found in Pit B which profile is distinctly concave.

pin-pointing of the broad surfaces would point to a pre-Tulunid date. Though this example was found in an obviously disturbed mound of debris, a pre-Tulunid dating had been established in this area.¹⁹

¹⁹ See Plan II, *Fustat '65-I*: it was discovered in the area where the long N-S street swerves to the SW in XVI-16/21.



TEXT FIG. 5 a.—FILTER. TULUNID.



TEXT FIG. 5 b.—FILTER. TULUNID.

Since it is concave it condigns to the earliest models, which may be summated as being concave, fitted within rims of vessels and with their external surfaces lightly striated, dotted or closely pin-pointed.

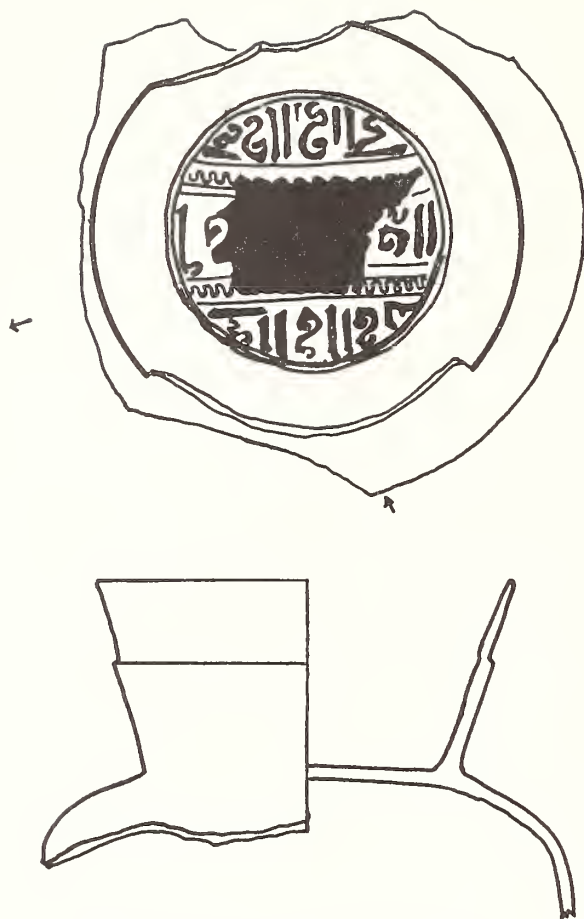
Pit B also hinted at another type of early decoration on unglazed wares. Two vessels, probably pitchers, had lightly incised designs on their necks somewhat crudely drawn incipient vegetal and geometric motifs.²⁰ The very same type of incised decoration was on the neck of a water-bottle filter discovered below the *dak-kah* fill of a room in what I consider a Tulunid structure. The filter itself is rather like the one in *Olmer* (his Pl. XLVIII-A), though lacking its border decoration. *Olmer* gives this a Tulunid dating; but because of the vessels in Pit B, dated to the last half of the eighth century, I would tend to place both somewhat before the advent of Ibn Tulun.²¹ The ribbed neck of our filter and the incised decoration relate it also to another found within the undisturbed fill of a sanitation canal, but here the decoration is an inscription, executed in the same manner (see *text fig. 4b*). This filter is reminiscent of the one in *Olmer* (his Pl. XLVIII-B), and both display a finer, lace-like mode of execution.²² These, too, I feel may be pre-Tulunid, but not as early as the examples with dotted, pointed and/or slightly striated surfaces.

If, as I have surmised, we have a genre of "transitional," pre-Tulunid filters, further proof can be adduced from the contents of a cistern which was estopped with

²⁰ One can be seen in *Contents of Pit B*, p. 191.

²¹ The neck and filter can be seen in *Fustat 65-I*, fig. 3 d.

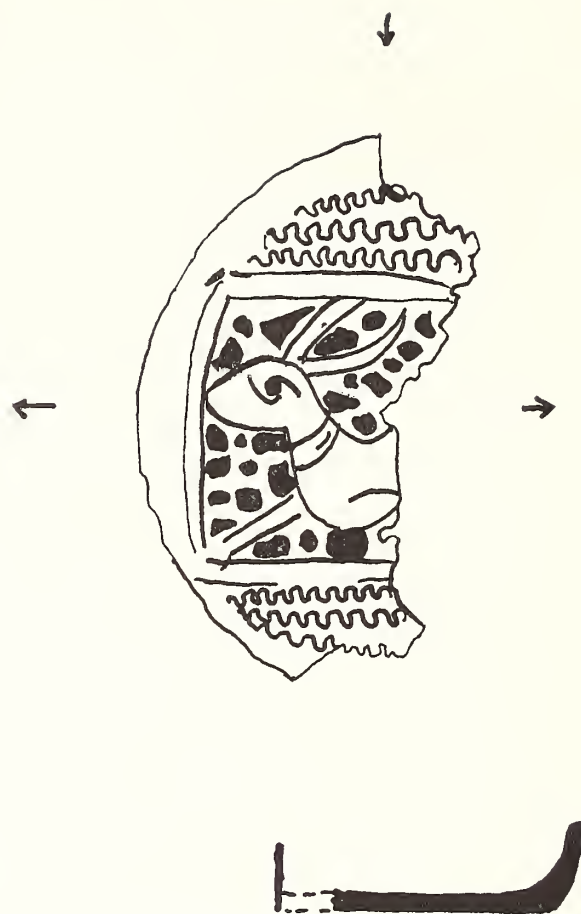
²² This filter whose neck is seen in *text fig. 4b* is reproduced in *Fustat 65-II*, fig. 6 c.



TEXT FIG. 5 c.—FILTER. TULUNID.

mortar about 1.75 m. below its rim. Below this the undisturbed contents were all of the early ninth century: the rim of a glass bowl with moulded ducks, another with a moulded diamond frieze, a perfume

²³ All these are illustrated in *Fustat '65-I*, figs. 3 a and 4 a-c. In that report they are dated to the 9-10th century, but particularly where the glass is concerned none can be dated after A.D. 900, and the techniques were probably used in the latter part of the 8th century. Indeed this pit (R' in XVI-11) seems transitional between Pit B and the one at V (XVI-16) whose contents were entirely Tulunid, including two pieces of ruby-lustered Samarra ware and the glass chalice used as a lamp, *ibid.*, Plate XXX, fig. 7. All three were



TEXT FIG. 5 d.—FILTER. TULUNID.

bottle with a finely-cut frieze of proto-palmettes, and a most interesting, flat filter, again unlike anything in *Olmer*.²³ However in the fill above the mortar, slightly disturbed due to scavaging or some

estopped, one roughly at 800, one at 850 and the last sometime after A.D. 900. The places noted can be found on Plan II, *loc. cit.*

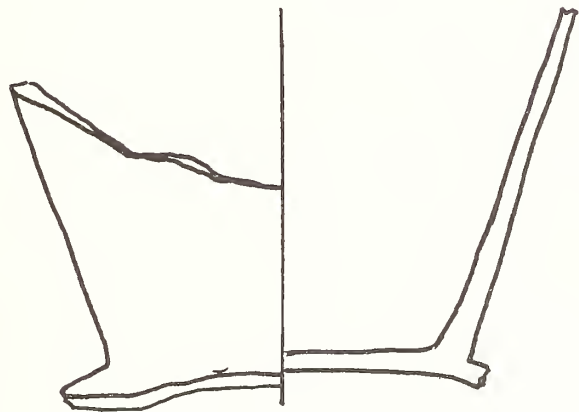
Three other examples seem to fit into this "transitional" group more on the basis of open style and emplacement of the filters than on considerations of ribbing or external decoration. Two of them (*fig. 3 c* and *text fig. 6 d*) seem to relate to *Olmer*, Pl. XLVIII-C, the first because of the triangular trellis-work, and the second because of 2 quarters of punctures, while its other 2 quarters

other process (this pit was directly adjacent to the long N-S street which itself was undisturbed in the length uncovered during the 1965 season), were three filters all convex and positioned at the base of the neck, at the point of jointure with the shoulder of the water vessel. Two (*text figs. 4c and d*) are related in size and mode of execution; and in their random symmetry they look very much like the center part of *Olmer* (Pl. LXXIX-E) (our example lacks his border), which he in turn associates with his Plate XXI-D, a filter he believes to be one of the epochs anterior to the Ayyubid without being sure which. The third (*text fig. 5a*) has interstitial designs executed in the same manner as the overall designs of the other two and a center veined-leaf design exactly like that of *Olmer* (Pl. LXVII-C), which he in turn relates stylistically to his Plate XLIV-C (side pattern like interstitial design on *text fig. 5a*) and Plate LVIII-E (simple cross-hatching incised lightly on surface surrounding incised animal). All three he assigns to the Tulunid epoch, and by mutual association so may we assign all three of ours.²⁴

Yet another pit,²⁵ whose undisturbed contents proved to be entirely Tulunid,

of slashed design is very much like *Olmer*, Pl. XLIV-C. It seems to me quite obvious that the latter is definitely Tulunid, and that in *text fig. 6d* may be also; but its position in undisturbed fill below a Tulunid flooring does militate somewhat against that late a date. Perhaps the best one can say is that it seems earlier than A.D. 900 rather than later. The third example (*text fig. 7b*) labors under the same strictures: stylistically it looks Tulunid, but archaeologically it seems earlier.

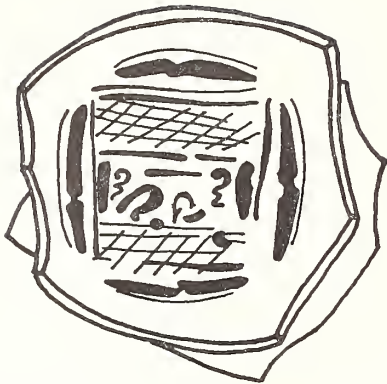
²⁴ A filter found in 1966 in a pit with almost wholly undisturbed fill, corresponds to those in *text figs. 4c and d*, and like them was convex and inserted at base of neck (see *fig. 3b*). From the



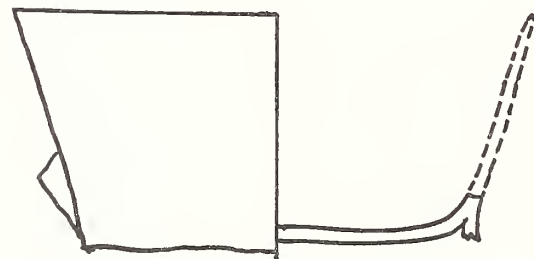
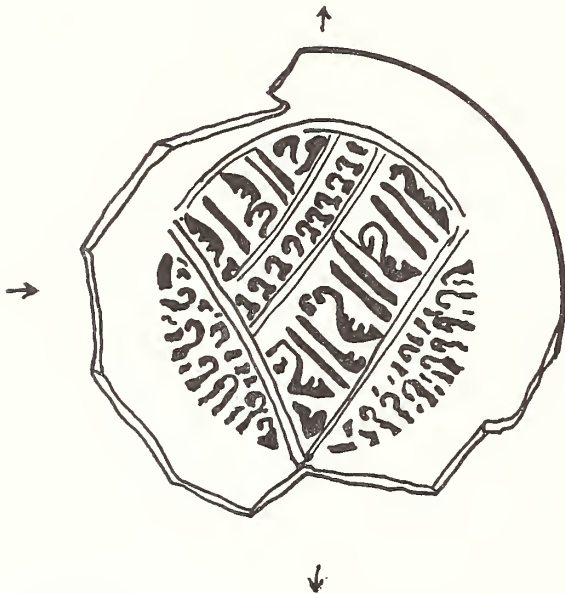
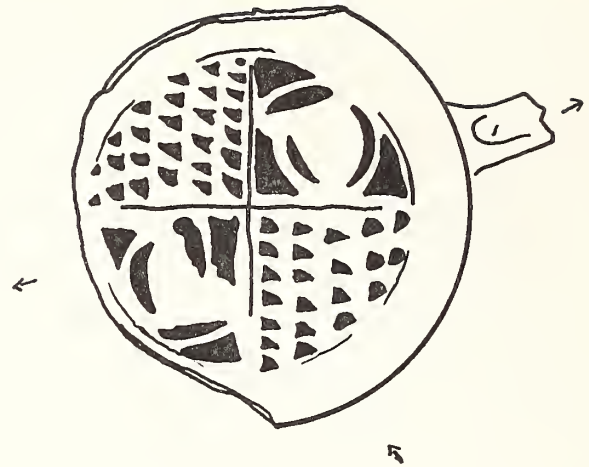
TEXT FIG. 6a.—FILTER. TULUNID.

same pit came another filter (see *text fig. 5b*) whose central register is exactly like *Olmer*, Pl. LXXVIII-D, and the upper and lower registers like his Pl. LXXVIII-E. Our filter confirms his Tulunid dating for both. And by stylistic analogy we can relate another filter found during 1965 in a pit with a more disturbed fill with *Olmer*, Pl. LXXIX, in that it probably carried the same motif in its central register (see *text fig. 5c*).

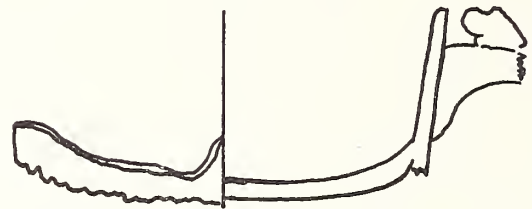
²⁵ Located at F' in XVI-7: *Fustat '65-I*. It was a sump which served the drainage system of three domestic complexes as can be appreciated in Plan III, *loc. cit.*



TEXT FIG. 6 b.—FILTER. AFTER A.D. 900.



TEXT FIG. 6 c.—FILTER. AFTER A.D. 900.



TEXT FIG. 6 d.—FILTER. BEFORE A.D. 900.

provided one filter with an animal (possibly a gazelle), almost a duplicate of the one to be seen in *Olmer* (Pl. LVIII-E), particularly in the lightly-incised cross-hatching.²⁶ The fragment of another (*text fig. 5 d*) depicts a hare against openwork in the central register (quite similar in feeling and execution to the animals in *Olmer*, Pl. LXIII-B and C) and lines of rucking in the upper and lower register. Though it was placed at the bottom of the neck its profile is flat. The third filter from this source (see *text fig. 6 a*) shows the same design of an irregular symmetry as noted above but this time in terms of a triangular center.

²⁶ *Ibid.*, fig. 3 b.



FIG. 1 a.—TERRA-COTTA FIGURINE. A.D. 750–800.



FIG. 1 b.—HEAD OF TERRA-COTTA FIGURINE.
CA. A.D. 800.



FIG. 1 c.—TERRA-COTTA FIGURINE. CA. A.D. 800.



FIG. 1 d.—SOAPSTONE BOWL. CA. A.D. 850.



FIG. 2 a.—SOAPSTONE BOWL. A. D. 800–900.



FIG. 2 b.—SOAPSTONE BOWL. A. D. 800–900.



FIG. 2 c.—SOAPSTONE LAMP. A. D. 800–900.

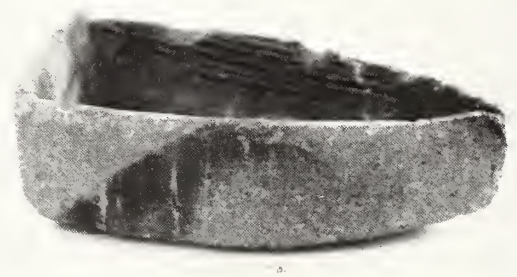


FIG. 2 d.—SOAPSTONE LAMP. A. D. 800–900.

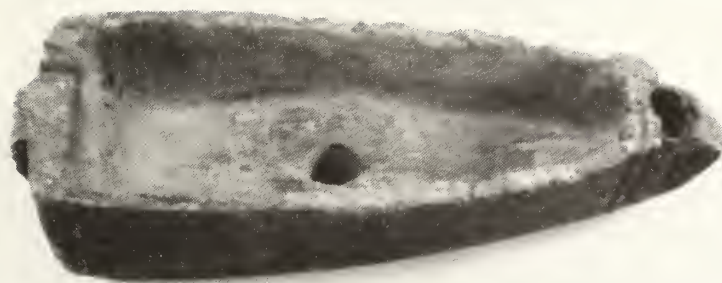


FIG. 3 a.—SOAPSTONE LAMP. A. D. 800–900.



FIG. 3 b.—FILTER. TULUNID.



FIG. 3 c.—FILTER. CA. A. D. 850.



FIG. 3 d.—COPTIC DOLL.
FATIMID.



FIG. 4a.—COPTIC DOLLS. DATES UNCERTAIN.



FIG. 4b.—COPTIC DOLL.
CA. A.D. 800.



FIG. 4c.—COPTIC DOLL.
CA. A.D. 800.



FIG. 4d.—COPTIC DOLL.
CA. A.D. 800.

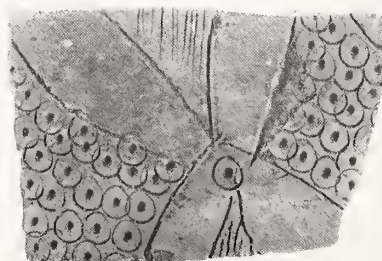
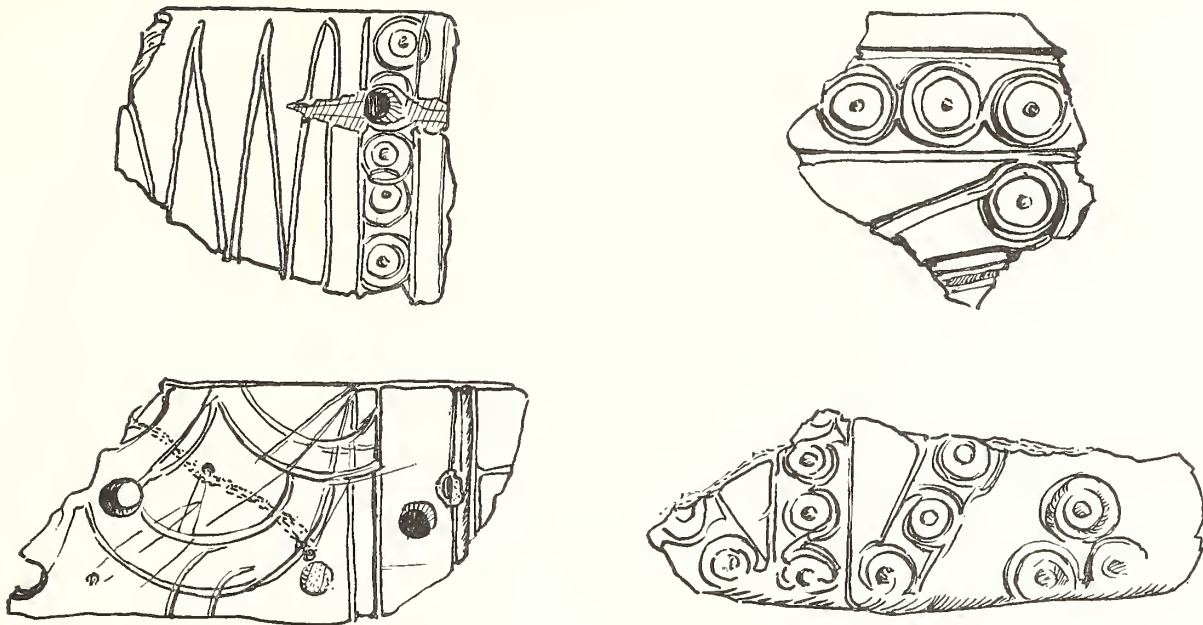


FIG. 5.—FRAGMENTS OF SOAPSTONE VESSELS EXCAVATED AT HIRA. EIGHTH CENTURY
A.D. (Courtesy Ashmolean Museum, Oxford.)



TEXT FIG. 7 a.—FRAGMENTS OF SOAPSTONE VESSELS EXCAVATED AT HIRA. EIGHTH CENTURY.
(Courtesy Ashmolean Museum, Oxford.)

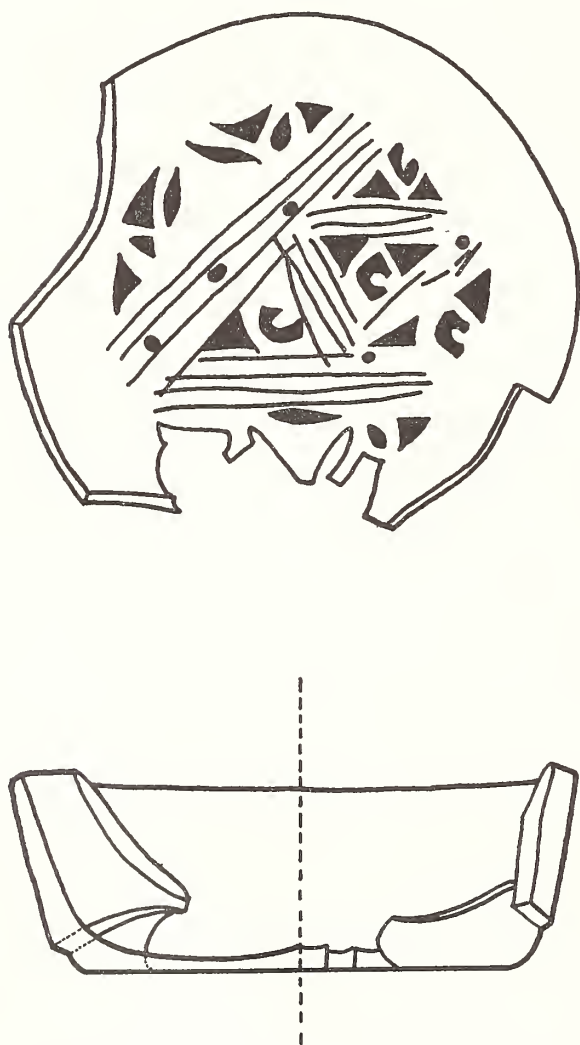
This move towards a firm geometrical central design will take two paths, which could serve as a chronological key, but which as yet must be confined to a period anterior to the Fatimid: either the filter will be relieved from the neck by slits or ruching or sometimes both (*Olmer*, Pl. LXXVIII-A, B and C and *text fig. 6b*), and the central panel may carry ruching and/or incised cross-hatching about the slashed pseudo-lettering; or it may fill up the entire space with geometrical panels carrying the slashed pseudo-lettering, and the intervening area given over to irregularly symmetrical fretwork (*Olmer*, Pl. LXXVII-C, LXXVIII-D and E; *Fustat* '64, *fig. 3f* [where its profile is convex]; and *text fig. 6c*).²⁷

With these stylistic innovations must be associated the fact that none of the necks seemed to have external ribbing, or at best

a single rib, nor was there any evidence of external incised design. Most of the filters were convex, and if placed concavely, were rather flat in the filter-area, as distinct from the definite concavity throughout of the large filter discovered in Pit B. Thus the more recent archaeology of Fustat not only substantiates much of *Olmer's* early typology but also adds to it in significant ways. Tentatively one may now break down the period ca. 750–950 into a very early period (filters in Pit B and those associated now on surer stylistic grounds): a transitional period (ribbing, external in-

²⁷ Both of the last examples seem variants of the filter incompletely displayed in *Olmer*, Pl. I-C. This filter seems to have been placed about midway in the overall neck of the vessel, whereas both of our examples are at the point where the neck meets the shoulder of the vessel, rather as the Fatimid example shown in *Olmer*, I-D.

cised decoration, placement of filter, filter profile); and a "continuing Tulinid" period (no external decoration, single rib on neck or none at all, filter placed at base of neck or no higher than mid-way, profile generally convex). This typology is not as firm as the one now verified for the Fatimid period, but as overall guide such filters can be considered with justice an ancillary dating material for the future Islamic archaeology of Egypt.



TEXT FIG. 7b.—FILTER. BEFORE A.D. 900.

EXCURSUS

"Coptic Dolls"

An object frequently found in all strata and throughout the site during all three seasons was the so-called "Coptic doll." Samples appeared in the strata for all periods, strata dated from other objects or from architectural evidence. These dolls do not seem to experience any chronological development nor can variants in form or execution be firmly established. Unlike the figurines noted above they persisted well into the Fatimid period,²⁸ and we cannot entirely disallow an Ayyubid or even Mamluk dating for those found in the upper reaches of the original mounds, two examples of which are shown in *fig. 5a*.²⁹

A dating of before A.D. 900 can be established for the dolls shown in *figs. 4b, c* and *d*, but, with the exception of the wide hips of the last doll, size, features and mode of execution can be duplicated in ones found in later strata or by appeal to those illustrated by Wulff and Strzygowski. The pronounced steatopygia visible in the carving of the doll in *fig. 4d* is more the result of the shape of the original bone than of any echo of ancient Egyptian or Cycladic models. Similarly

²⁸ See *fig. 3d* for an example found in a cistern whose contents (mostly water-bottle filters) were from a period anterior to the destruction in A.D. 1168, *Fustat '65 II*, "Stratigraphical Evidence," *passim*.

²⁹ For the one on the left cf. Wulff, *op. cit.*, Taf. XXII, nr. 529 and Strzygowski, *op. cit.*, nr. 8868, the latter of which is dated to XI/XII century. For the one on the right cf. Wulff, *loc. cit.*, nrs. 544 and 545, and Strzygowski, *loc. cit.*, nrs. 8874-76 dated to the VIII/IX century.

the small length of bone used and the somewhat triangular longitudinal section dictated carving the head only, as in *fig. 4c*.

As with the terra-cotta figurines these dolls represent on the lowest level the continuity of craft into the Islamic period, but with designs and modes of execution unchanged and almost invariable subsequently. No doubt there is a parallel evolution from votive figures (copied from far more beautifully carved ivory plaques and figurines) to dolls, with some probable use as amulets. In countries without an abundance of wood, these dolls are the equivalent of the objects "whittled" by otherwise

busy men at rest, purely "reflexive" products meant to amuse and pacify.³⁰ Very little of a craftsman's thought attends them; thus they seem to lack historical development, at least after the seventh century A.D., and cannot be utilized to any advantage for dating within the Islamic period of Egyptian history.

³⁰ I doubt if the doll illustrated by Lane (*op. cit.*, p. 74 and Fig. 14D) was imported from Egypt, but is rather autochthonous to Syria. It has far fewer modelling details; a comparative study of such details might yield a regional "school," but, as is the case at Fustat, could hardly be a source of definite dating.

AN OTTOMAN BUILDING COMPLEX OF THE SIXTEENTH CENTURY: THE SOKOLLU MOSQUE AND ITS DEPENDENCIES IN ISTANBUL

BY DOĞAN KUBAN

FOR A BETTER UNDERSTANDING AND A REAL appreciation of classical Ottoman architecture, the monuments of the second half of the 16th century are of primary importance. After the consolidation of the military conquests, the opulent Ottoman society of this period, which had a rather long tradition in monumental performance, produced an incredibly rich scala of significant buildings. The architects searched for a richer and more dynamic statement which, in the last analysis, was the expression of the new society, the unchallenged master of its time in both material and, from their point of view, spiritual domain.

Sixteenth-century Ottoman architects, especially Sinan and his school, did not introduce new techniques, but they did elaborate old formulas of cupola architecture with a mature architectural taste; with well developed techniques of construction and decoration, they brought Ottoman style to the ultimate level of its expressive capacity as a total architectural concept.

It is worth while to note that a comparison between Ottoman style and other contemporary Mediterranean styles may produce fruitful arguments for the reappraisal of some basic tenets of the history of architecture. The evolution of High Renaissance and the very little known evolution of Ottoman architecture are parallel processes in the Mediterranean basin which express the essential differences between the social and cultural atmospheres

prevailing in Italy and in the heart of the Muslim Near East; but in the same time, they point out to the existence of more deeper trends of formal affinities.

The Sokollu complex in Istanbul is the work of Sinan and his school. It was built in the 16th century for the Grandvizir Sokollu Mehmet Paşa, one of the most celebrated statesmen of the Empire, and his wife, Esmahan Sultan, daughter of Sultan Selim II. The complex, which consists of a medium-sized mosque, a *medrese* and a *tekke* (cloister), is not the only foundation of the Sokollu family; the Grandvizir himself established a great many public buildings in different cities of the imperial domain,¹ and both his wife and son, İbrahim Paşa, have several buildings and foundations to their credit. The Sokollu complex, however, built near their palace in the old Hippodrome area, in the heart of the city and on the site of an old but unidentified Byzantine church, was probably one of their most important contributions to the social life of their time. It, therefore, illuminates the character of a foundation established by a great dignitary of state, the relative social and architectural importance of its components as well as the ideas of artistic and social accomplishments of the period and the standards of architectural achievement.

¹ For other buildings of Sokollu Mehmet Paşa, see N. Iorga, *Geschichte des Osmanischen Reiches*, Gotha, 1908-13, vol. 3, p. 165.

History

In the list of Musfafa Saî's *Risale-i Tezkiret ül-Ebniye*, the Sokullu Mosque is mentioned in the 9th place; the *medrese* is No. 12 under the heading of *medreses*. The location is named as *Kadırga Limanı*, the old harbor quarter of Sophien.² Evliya does not mention this complex. In the 18th-century work of Hafız Hüseyin Efendi, *Hadikat-ül-Cevami*, we find the following information (abridged to its essentials): "...it is an elevated [*fevkanî*] building, transformed [*sic!*] from a church. During the grandvizirate of him [Sokollu], it was built by the daughter of Sultan Selim II, Esmahan Sultan; and he [Sokollu] added a *medrese* and a fountain in the courtyard and cells for the students and a cloister behind. Therefore it is known as Sokollu Mehmet Paşa Camii.... In the interior there is a piece of *Hacer el-Esved* [the holy stone in the Kaaba]; it was placed there for the visits of the believers...."³ Then, Hüseyin Efendi gives the inscription (see below) on the principal gate of the northwest facade. Other information, except a date given by him which will be discussed in its place, adds little to our understanding of the building. He tells us about the lives and tombs of Sokollu and Esmahan Sultan, and especially about the shaikhs of the *tekke*, some of whom have their tombs in the yard to the rear of the mosque.

² Mustafa Sai, *Risale-i Tezkiret ül-Ebniye* in Mimar Sinan, Hayatı eseri I. *Mimar Sinan'ın hayatına, eserlerine dair metinler*. Critical Edition by R. M. Meriç, Ankara, 1965, pp. 75 and 95.

³ Hafız, Hüseyin Efendi (Ayvansarayî), *Hadikat ül-Cevami*, edited by Mustafa Satı Efendi, Istanbul, 1281 H./A.D. 1864, vol. 1, p. 193 ff.

At the end of the 19th century, Paspatis, without any material evidence and with a faulty interpretation of the sources,⁴ thought that the church Anastasios was the initial building of the Sokollu mosque. The mention of a church in the main inscription, and probably the rather conclusive statement in Hadika, led many scholars to accept the location of the mosque as the original site of the church of Anastasios; the transformation of the church into a mosque, however, was rejected for obvious reasons. Janin proved afterwards that the site of the church of Anastasios was not here but in another region of Istanbul.⁵

The demolition of an existing church mentioned in the inscription and fragments of reliefs, one of a madonna with child found in the northwest wall of the mosque during recent restorations, indicate that the mosque was built upon the site of an older building.⁶ But we do not know the name of this church. In the area between the old Hippodrome and the port of Sophien the sources mention several churches and monasteries.⁷ However, without further research and excavations, it is impossible to identify the Byzantine church replaced by the mosque.

⁴ A.G. Paspatis, *Byzantinai Meletai*, Constantinople, 1877, pp. 364-375. In 1874 Paspatis discovered large foundation blocks near the Sokollu mosque and, by deduction, took the mosque to be the former church of Saint Anastasia Pharmasoltyria.

⁵ R. Janin, *La géographie ecclesiastique de l'Empire Byzantin*, tome III, *Les Eglises et les Monastères*, Paris, 1953, p. 28 ff.

⁶ Anon, *Istanbul Abideleri*, Istanbul (Yedigün neşriyatı), n.d., p. 103.

⁷ See R. Janin, *Constantinople byzantine*, Paris, 1950, pp. 299, 313.

There are several descriptions of the Sokollu Mosque,⁸ but an early useful study was that of C. Gurlitt, who published plans and sections of the complex.⁹ There is also a rather literary description of the mosque by the anonymous author of the book *Istanbul Abideleri* which contains valuable information.¹⁰

Date

The date of the mosque is given by an inscription above the door of the main gateway:

تاریخ بناسی بودر
هم نام فخر عالم یعنی وزیر اعظم * کیم یمنی لایزال اقبال سرمدیدر
کفار خاکسار ک یقوب ک: سه سنی * برده بدایلدیکم شهرک سرامدیدر
بیت الماده اولدی اولدار کفر وظمت * حقابو معجزات کبرای احمدیدر
تاریخ فکر ایدر کن بو فتحه هاتف غیب * دیدی (بو جامع دین فتح محمدیدر
۹۷۹

In this inscription it is said that the Grandvizir is the founder of the mosque; there is no mention of the other buildings. The inscription also mentions the destruction of the old church. The last line, "*bu*

camii din, fethi Muhammedidir" gives the date of H. 979/A.D. 1571-72; this is, as is usual in such cases, the completion date of the monument, and its location over the main gateway indicates that the mosque and the adjacent *medrese* were completed at the same time.

This inscription does not coincide with the description given by Hüseyin Efendi: here the Grandvizir, and not his wife, is clearly mentioned as the founder. The Hadika's version has generally been accepted without question, except by Koçu in a newspaper article,¹¹ but there is no plausible reason for rejecting the correctness of the inscription. A more probable explanation would be that the cloister and perhaps the fountain (*şadırvan*) in the courtyard were added later or completed by Esmahan Sultan, who died six years after her husband (A.D. 1585).

In Hadika there is a passage which states that the venerable shaikh, Nureddin Zade Efendi, to whom the cloister was entrusted, died immediately after the completion of the building, and that another shaikh, Mehmed bin Ömer Efendi, suggested by the latter, was appointed. Unfortunately, I have not been able to find the exact date of Shaikh Nureddin Zade's death. However, according to Hadika the second shaikh died in 997 H./A.D. 1588-89, after a stay of several years in the *tekke*.¹² This date suggests that the construction of the *tekke* was completed about the same time as the other buildings of the complex. As a matter of fact, there is no

⁸ For the description and evaluation of the mosque cf. Halil Edhem, *La conservation des monuments antiques et historiques en Turquie*, Actes du Congrès d'Histoire de l'Art, Paris, 1923, p. 215 ff., pls. 7-8 (include the plan, section and elevation of the mosque); A. Gabriel, *Les mosquées de Constantinople*, Syria, 1926, pp. 394-395; E. Egli, *Sinan*, Zürich-Stuttgart, 1954, pp. 94-96; D. Kuban, *Osmanlı Dinî Mimarisinde iç mekân teşekkülü*, Istanbul, 1958, pp. 48-49; D. Kuban, *Les mosquées à coupole à base hexagonale*, Beitrage zur Kunstgeschichte Asiens, in memoriam E. Diez, Istanbul, 1963, p. 39; C. E. Arseven, *Türk Sanati*, Istanbul, n.d., pp. 348-350.

⁹ C. Gurlitt, *Die Baukunst Konstantinopels*, Berlin, 1907-12, vol. 2, pp. 82-83, pls. 26, d and f.

¹⁰ *Istanbul Abideleri*, pp. 100-103.

¹¹ R. E. Koçu, *Türk İstanbul*, Cumhuriyet (extra publication on the city of Istanbul), Istanbul, 1953, p. 82.

¹² Ayvansarayî Hüseyin Efendi, *op. cit.*, vol. 1, p. 194.

constructional evidence to show a difference between the mosque and the *medrese* on one hand and the *tekke* on the other.

The architect of the building

It seems that there is no doubt concerning the identity of Sinan as the architect of the building. However, during the year H. 979 A.D. 1571, Sinan had been extremely busy with the construction of the great mosque of Sultan Selim, the Selimiye Mosque in Edirne. Several court orders carrying the date of this year show Sinan continuously working at Edirne.¹³ He had been probably equally busy the year before as the preparations for the Sultan's mosque had begun as early as 1567. During the same period many buildings were built, all of which are accepted as the work of the master.¹⁴ It is obvious that all these buildings cannot have been designed by a single hand. We should consider that the working system of Sinan's office was similar to that of a modern architectural firm in which every architect is responsible for the design of a single building and is credited as co-author of the project with the owner of the firm. It is probable that Sinan's office was so organized. Sinan was the designer of large monuments ordered by the Sultans, and in his leisure time, by the great dignitaries. But in many instances one should admit the possibility of lesser archi-

tects working under his supervision. It would be extremely difficult to differentiate between the style of the master and those of his pupils, since many of Sinan's pupils became great architects, and the style of his school was homogeneous to a large extent. Only a very careful study might show distinctive nuances of which we are unaware at the present level of our knowledge of Ottoman buildings.

Description of the complex

The Layout.

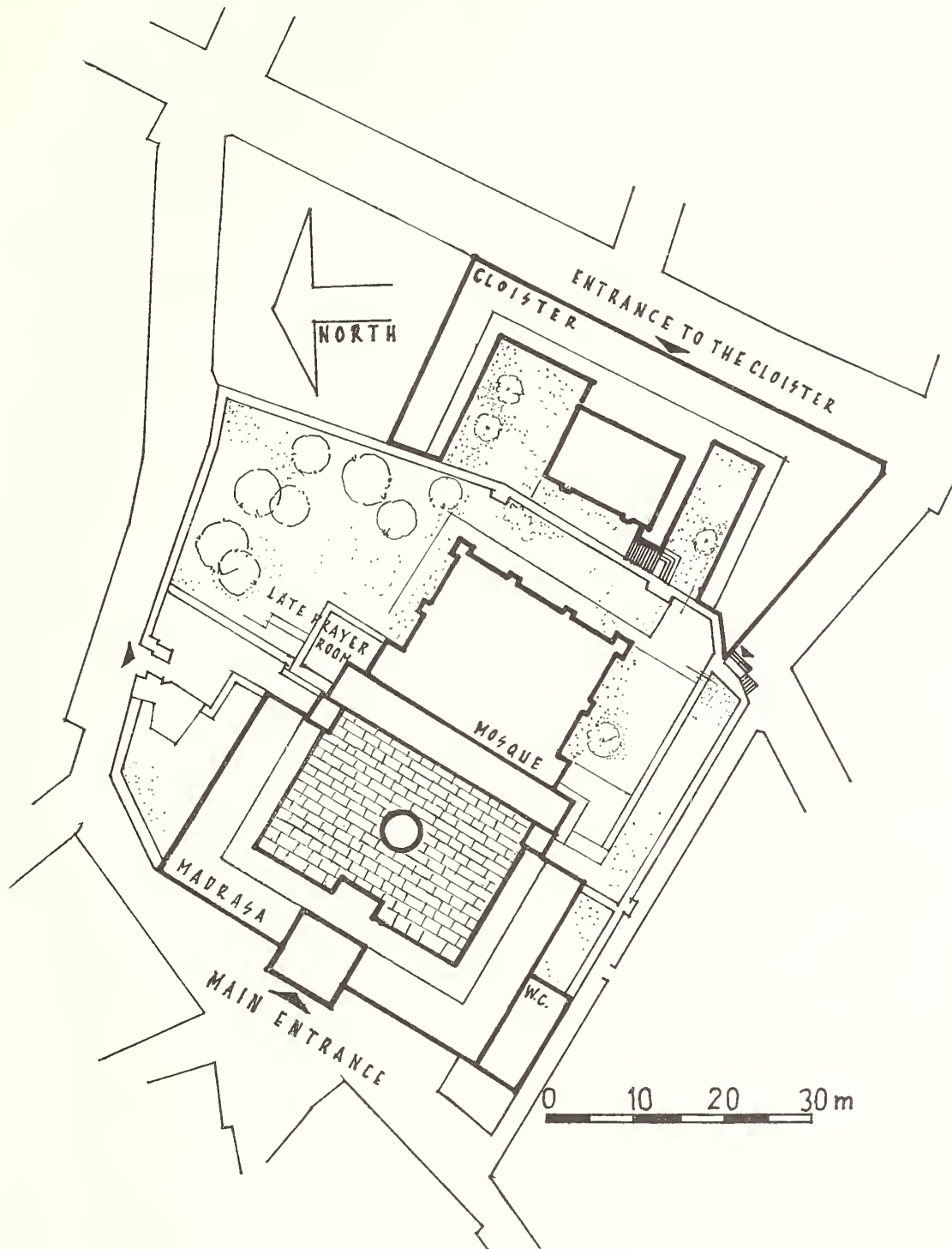
The site of the complex is an irregular polygon, very steep in the east-west direction (*text fig. 1*). The mosque and the *medrese* with their common courtyard are placed at the lower part of the site, the entrances being from the northwest, northeast and southwest. Only from the northeast can one enter the main level of the mosque; other entrances reach this level by means of stairs, the main entrance on the northwest being about 5 meters lower than the court level.

The *tekke* is behind the mosque, placed on the southeast part of the site and connected with the rear courtyard of the mosque through a small door. The main entrance of the *tekke* is from the southeast. It seems that the *tekke* does not constitute an integral part of the original architectural composition. However it is masterfully situated, like the mosque and the *medrese*, on the difficult terrain.

The complex and its depending cemeteries are surrounded by streets which probably roughly correspond to the original ones. Because of the character of the terrain the inner and outer scales of the

¹³ Ahmet Refik, *Mimar Sinan*, Tarihi Osmanî Encümeni Mecmuası (last volume with the new alphabet), documents nos. 9, 10, 12.

¹⁴ The other works of Sinan's in these years are: The Selimiye mosque in Edirne (1568-75); The Piyale Paşa mosque in Istanbul (finished in 1573); The mausoleum of Sokollu in Istanbul (finished before 1574), among others.



TEXT FIG. 1.—GENERAL PLAN OF THE COMPLEX.

complex are different: from the outside one sees a building of two or more floors; from the courtyards, even the mosque itself has humble proportions. The level of the terrain behind the mosque is about 5 meters lower than the street level. The composition of the layout does not necessitate this arrangement. A possible explanation of this is the existence of older buildings on the spot, which were completely demolished for the use of their materials; the foundation level was not filled up and was used afterwards as a garden for the ensemble. Later it became a cemetery full of tombs of religious men, both those who had been the shaikhs of the *tekke* and others;¹⁵ it is extremely pleasant with its cypress trees, shrubs and greenery.

The main level of the mosque and the *medrese* and part of the *tekke* are built on a substructure of large arcades which are expressed on the façades as large niches. On the main façade these niches were used as small shops.¹⁶ Whether they were originally intended for this purpose, we cannot say.

Medrese.

The main entrance is from the northwest. The classroom of the *medrese* projecting outside from the center of the northwest façade covers the main gateway and thus, with its supporting pillars, provides shade and volume to underline the main entrance (*fig. 1*). The ceiling of this main porch is decorated with painted stucco motifs; and the arch of the small door

leading to the stairs, with its delicate floral design in the shape of lilies, adds another decorative note to this entrance.

A steep stairway (the average dimensions of the steps are 0.195 × 0.375 cm.) leads to the courtyard (*fig. 2*). The ceiling of this stairway was also covered with painted stucco decoration which no longer exists.

The stone-paved courtyard is surrounded by arcades; in the center there is a *şadırvan* (a fountain for ablution).¹⁷ There are several existing examples of a *medrese* and a mosque combined around a court,¹⁸ but here the courtyard has a rather peculiar design: areas of different functions are accentuated with special forms; the *son ce-maat mahalli* (the outside porch for late prayers) of the mosque has spacious proportions and the treatment of the northwest façade of the prayer hall with its niches, side entrances, faience panels and the columns of the arcade with *mukarnas* capitals is very classical (*fig. 3*). The porch consists of seven cupola-covered bays. The central cupola is higher than the others, as usual. The bays were decorated with paintings, but the original decor no longer exists.

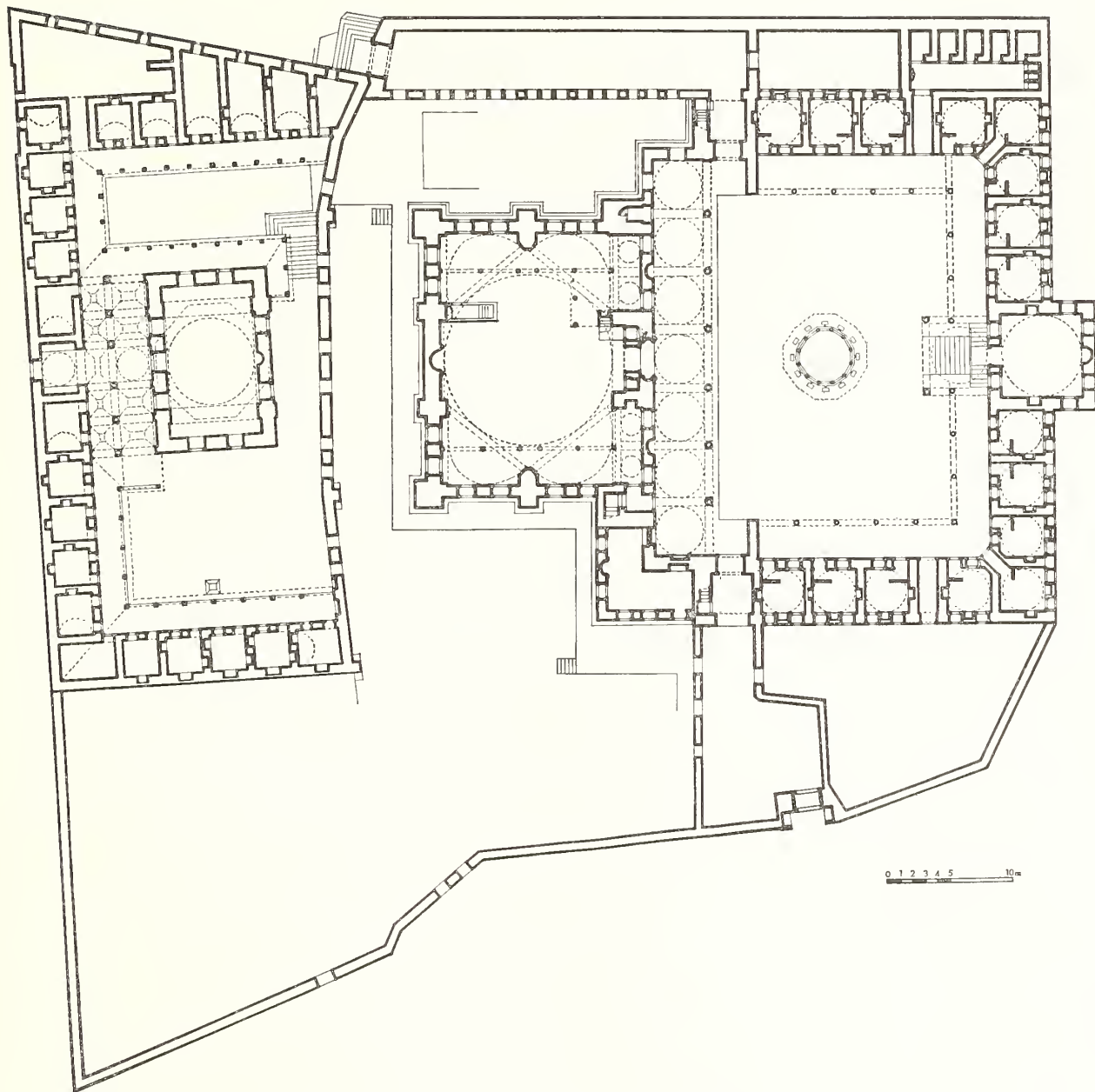
The other three sides of the courtyard are occupied with the cells of the students and a central classroom; the arcade in front

¹⁵ *Istanbul Abideleri*, p. 100.

¹⁶ A late use of these niches is shown on a drawing by Gurlitt in *Die Baukunst Konstantinopels*, vol. 2, pl. 26 e.

¹⁷ A *şadırvan* is not necessarily a fountain for ablutions. In many instances it has a symbolic and aesthetic character while real ablution fountains are placed somewhere else, as is the case with the mosque of Sultan Ahmet, the Yeniciami, etc.; however, in mosques of average size, the *şadırvan* is generally used for a practical purpose.

¹⁸ Among the buildings in Istanbul attributed to Sinan are the Mosque of Ahmet Paşa the Mosque of Mihrimah, and the Mosque of Zal Mahmut Paşa.



TEXT FIG. 2.—PLAN OF THE MOSQUE AND THE MEDRESE.

of them, formed with arches "en accolade" of very low proportions (*fig. 4*), constitutes a striking contrast to the entrance of the mosque. This arch form is fairly common in the later buildings of the Sinan Period.¹⁹ On the opposite side of the mosque, in the center of the northwest arcade, a cupola-covered bay marks the end of the main staircase and the entrance of the classroom; from under the arcades two symmetrical stairs lead to this room (*fig. 5*).

The high colonnade of the porch of the prayer hall proper and the low arcades of the *medrese* cells are united by two small pavillons over the side entrances containing the rooms of the *müezzîn* and the *kayyum*. These closed architectural elements, higher than the arcades of the *medrese* and lower than the porch, provide a smooth and effective passage between the two functionally and formally different elements of the composition (*fig. 6*).

The central dodecagonal fountain has marble columns constituting the frame for marble panels and an iron grid of common geometrical design. The basin inside is open and in its center there is a marble "vasque." The cupola-covered fountain and its roof have probably retained their original shape (*fig. 7*).

From the northeast side of the site a small gateway leads to a small, rather irregular outer yard from which one enters, under the *Kayyum's* room, the courtyard. Another gateway on the southwest leads to the courtyard through an open passageway (*fig. 8*).

¹⁹ Other examples are in the interior of the Rüstem Paşa Mosque, in the courtyards of the Mosque of Zal Mahmut Paşa, and of the *tekke* and the *medrese* of the Mosque of Eski Valide at Üsküdar.

The Interior of the Mosque.

One enters the prayer hall through a deep, rich monumental portal in which a small door opens; the design of the portal is common for the period (*fig. 9*). There are two other entrances on this façade: small doors lead to the galleries on one side, to the minaret on the other (*fig. 10*). The upper galleries are also reached from the inside by stairs built in the thickness of the buttresses. The interior of the mosque has an unsurpassable spatial unity found in many medium-sized mosques of this period (*fig. 11*). A rectangular space of about 18.80 × 15.30 m. is covered with a dome carried on an hexagonal base constituted by a triple partition of the northeast-southwest walls of the basic rectangle. The projecting parts of the supporting pillars have different forms: on the northwest side they are massive buttresses flanking the entrance (*fig. 12*); on either side of the room they are polygonal according to their function; on the *kible* side, they are rather shallow pilasters framing the *mihrab*.

The only spatial elements in this simple structural scheme are the galleries surrounding the room which are supported by thin marble columns (*fig. 13*); the side galleries are narrow and very low; they do not hinder in any way the essential spatial unity of the interior. These low proportions were possible because of the use of horizontal slabs for the ceiling of the galleries; at the same time, this construction produces rather narrow galleries which are in harmony with the dimensions of the interior. On the entrance wall, galleries on different levels, with the addition of the *müezzîn mahfeli*, create an extraordinary appeal to modern taste (*figs. 14a and b*).

The alternate use of small and large arches in these galleries is a familiar hallmark of this period.²⁰ The central point of interest in the composition of this interior is the central bay of the *mihrab*-wall containing the *mihrab*-niche; it is covered up to the base of the dome with tiles, and it is pierced with six windows having elaborately designed stucco frames with colored glass fillings (fig. 15).²¹ In the distribution of decorative elements, this wall is of the utmost importance. From this part of the *mihrab* wall, the tile-covered surface spreads to the pendentives; there, the concave, colorful glazed surface reflects the light coming from the dome windows; thus the color effect of this upper level crowns the upwards movement of the vision, consciously concentrated on the *mihrab* wall. The other use of tiles is on the tympanums of the side windows and on the medallions, which are of decidedly secondary importance. The only asymmetrical note in this hierarchy of color is the tiny crowning spire of the *minber*, covered with beautiful mosaic tiles.

Nothing remains from the original painted decoration of the walls and the dome. Only under the galleries are there some remains of painted decoration, which we shall discuss later.

More than ninety windows illuminate this interior; there is a hierarchy in the placing of these windows. The *mihrab* wall has the fewest windows; the function

of their colored-glass fillings is to diminish the intensity of the light. The north wall has also rather small openings. The bulk of light is provided by the side windows and by the windows in the drum (which is not a true drum), and in the semi-domes. At the corners of the semi-domes there are painted fake windows. We do not know whether the use of these fake windows was already common in the 16th century or whether it was a creation of later times, perhaps the 18th century.²² Except for the stucco *mukarnas*, a purely decorative feature, the Ottomans and the Seljuks before them did not have recourse to this baroque habit of effects created by sculptural or painterly means (figs. 16 and 17).

The composition of the side walls is regular (fig. 8): in every arched bay there are two rows of two windows; the rectangular windows of the first rows are crowned with tile panels; the arched windows of the upper row have colored glass of simple design.

In the Ottoman mosques, the use of light has a totally unorthodox character: the interior is submerged in light. To counterbalance this and to prevent any possible embarrassment of the worshipper by an excess of direct light, a neutral color scheme is used. For the same reason, the windows which provide the most light are placed in the upper part of the room. The light is also controlled by the use of stucco panels and their colored glass, and the colors used in the *mihrab* windows towards which the worshipper turns are purposely darkened.

²⁰ A well-known example is to be found in the courtyard of the Selimiye Mosque in Edirne.

²¹ Nevertheless, these windows do not belong to the original building and we do not know if they imitate the original design (cf. E. A. Grossvenor, *Constantinople*, Boston, 1895, vol. 2, p. 149).

²² The classical design of the windows date from a recent restoration. In the Gurlitt photos, they show a late baroque character (*op. cit.*, pls. 26, b and c).

The *minber* (fig. 19a and b) and the *müezzin mahfeli*, both in marble, are in harmony with the character of the interior. The simple polygonal arabesque of the balustrade and the delicate rows of prismatic *mukarnas* are essential decorative motives in them (fig. 20).

The floor of the mosque is covered with stone plates which are hidden under the rugs.

Rooms Around the Courtyard.

The classroom is contained in the domed chamber above the main entrance. As an architectural element, it acts aesthetically in underlining the axiality of the composition and, at the same time, functionally in covering the main entrance; the importance given to it as a main element of the composition is enhanced by the cupola-covered bay and two symmetrical stairs before it (fig. 5). It is a well lighted room. It has a small niche for the teacher in the wall opposite the door. Unfortunately none of the original decoration remains.²³ There are sixteen rooms for the students of the *medrese*. Every room is lighted sufficiently by four windows on the outside and one on the court. Each has a fireplace and is probably intended for two students.²⁴ Nothing remains of their original decoration.

The rooms serving the *müezzin*, the caller to prayer, and the *kayyum*, the custodian of the mosque, occupy the upper part of the side entrances to the courtyard

and are reached by two narrow stairs in the wall.

From the courtyard a small gangway leads to the lavatories at the western corner of the site.

Tekke.

This is an independent and important architectural composition. The whole building, which was in bad condition, has recently been restored and is now used as a student hostel. A cut-stone wall separates the narrow backyard of the mosque from the *tekke* complex (text fig. 3). This complex consists of a cupola-covered meeting room and small rooms for the students and dervishes which surround two courtyards on both sides of the central room.

From the southeast one enters a vaulted entrance hall which leads to the meeting room. This entrance hall, with its symmetrical arrangement and its rarely used cloister vaults, is an interesting feature in itself. On the right of the entrance, there is a one-story courtyard surrounded by eleven cupola-covered rooms which have a colonnade in front of them. The flat wooden ceiling of the arcade is now totally destroyed. In the courtyard there is a well; once a garden with trees, it is totally desolated now. On the left side of the entrance is a two-story courtyard surrounded by twenty-one rooms with arcades. At the corner of this left side, on the southernmost point of the complex there is a private wooden house, the house of the shaikh of the *tekke* (fig. 21); the house is certainly from the 19th century but most probably replaces an older original one. The northern one-storied courtyard extends to the south behind the meeting room and is con-

²³ We have been unable to investigate very carefully the classroom as it is being used as a storage-room for old documents and has been filled with wooden shelves.

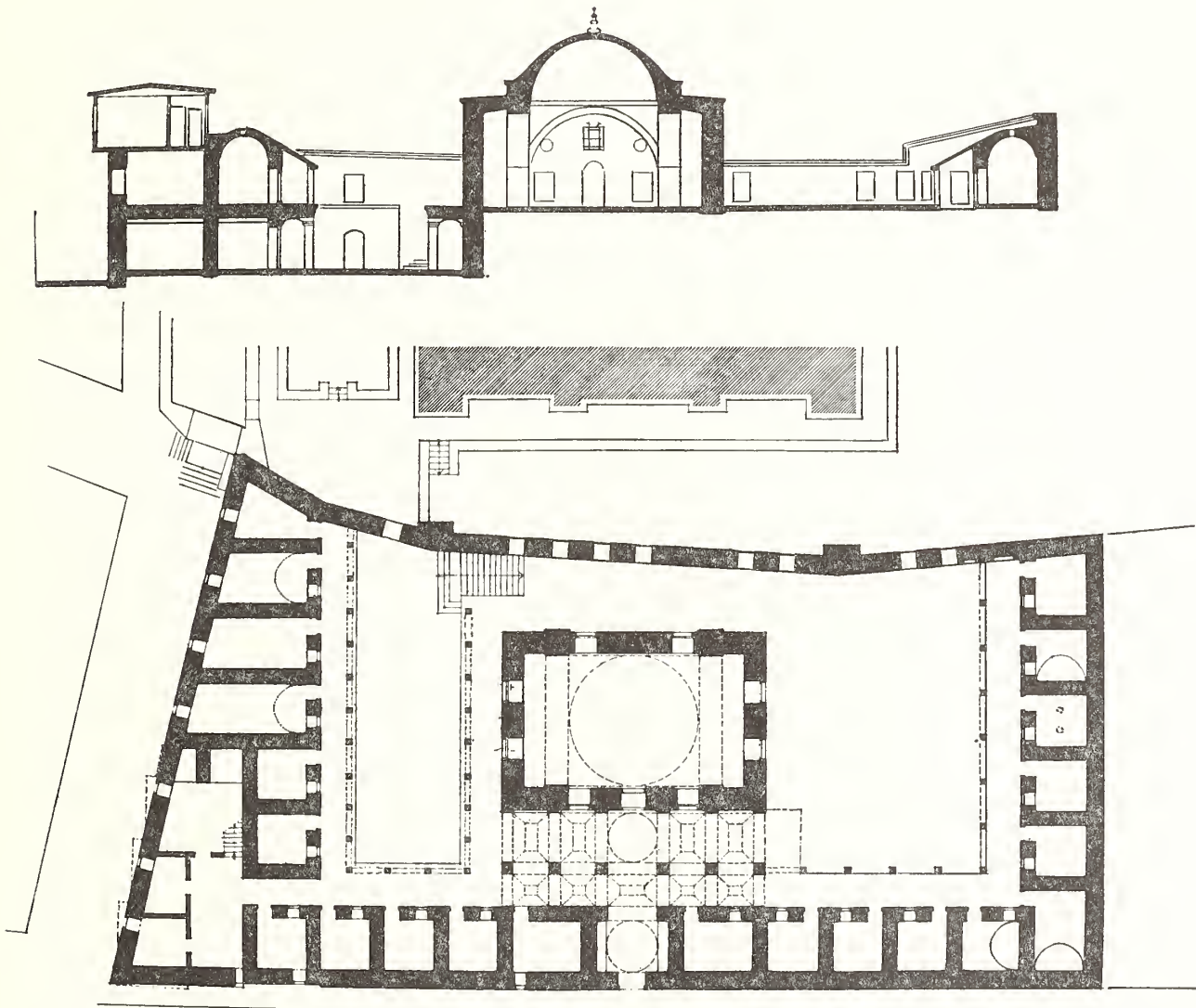
²⁴ Cf. Gurlitt, *op. cit.*, vol. 2, pl. 26 ff.

nected with the southern courtyard by a stair. A small door from this lower courtyard leads to the backyard of the mosque; this is the only connection between the mosque and the *tekke*.

An interesting structural feature is the covering of the prayer room: a rectangular space is covered by a central cupola and two narrow flat stone ceilings. The cloister-vault construction of the entrance hall is

brick. The mixed wall construction of the *tekke* is similar to that of the mosque.

The building has very few decorative details: the capitals are quite non-existent; the existing ones are simple blocks of a single moulding. The rooms are white-washed. The cupola of the central room has what is apparently an old decoration, the motives of which are the same as those used in the re-decoration of the mosque.



TEXT FIG. 3.—THE PLAN AND SECTION OF THE TEKKE.

From the outside, the entrance with its pointed cupola (*fig. 22*) and the wooden house of the shaikh are the main motifs. The sequence of three cupolas on the main axis of the building is also to be noted.

The Prayer Room on the Left of the Mosque Proper.

This late but very carefully executed L-shaped room with an apsidal niche was probably used for praying purposes. It has no connection with the main room. The reason for its existence is unsolved.

The Fountain and Cemetery.

The fountain at the corner of the north-west facade of the *medrese* has no date. But it is also a late addition, possibly from the 17th century.

The low garden behind the mosque is closed to the street. It has no specific function and eventually became a burial ground, a characteristic feature of every mosque in Turkey (*fig. 23*).

Structural experimentation

In the development of Ottoman mosque architecture, experimentation with different domical systems constituted the main occupation of the architects; these knowing experiments continued for about two centuries. There are some studies in which the place of the Sokollu mosque was discussed.²⁵ A few hints might show the characteristic approach of Turkish architects to the problem of structure.

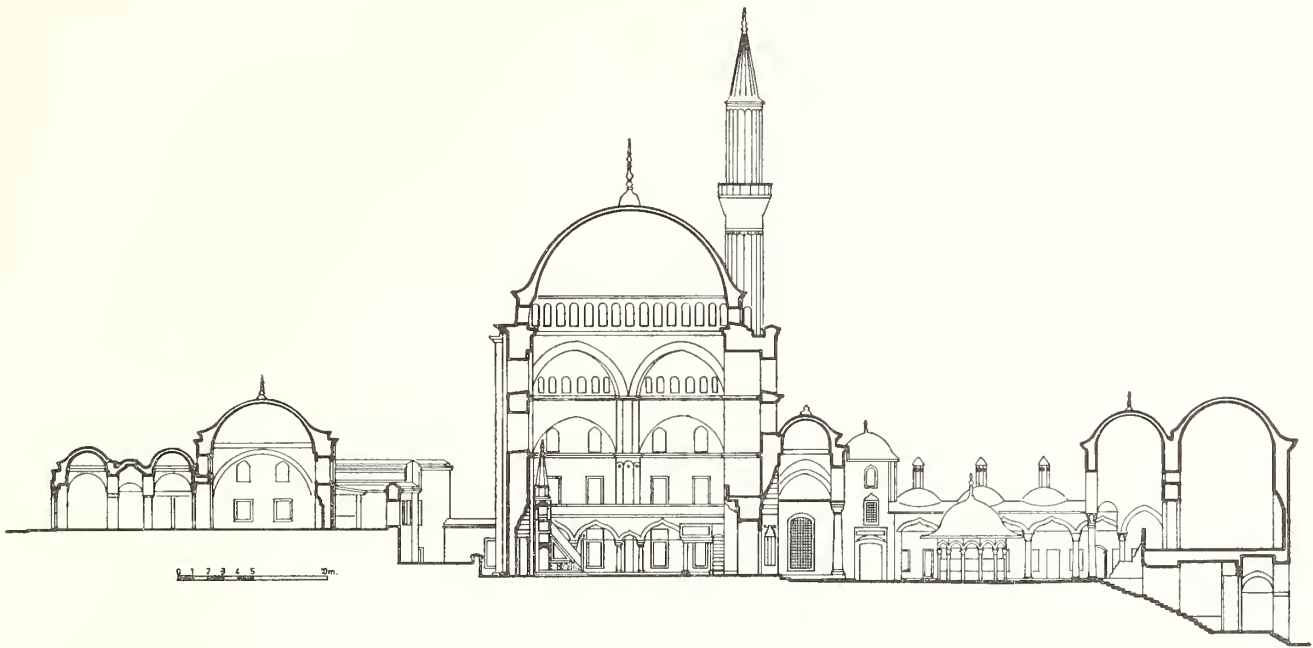
²⁵ Cf. footnote 8.

The diameter of the Sokollu Mosque's dome is about 13 meters. A wall of 1.5 meters is usually normal for this diameter.²⁶ Here the thickness of the walls is about 1 meter; to compensate for the relative weakness of the walls, a system of six buttresses was devised: they do not constitute a separate system of support such as in the Selimiye in Edirne but are part of the carrying walls. Their forms are conditioned by their specific place in the composition of the interior; as a result, the northern buttresses are rather large without being the result of a structural necessity.

In this cupola the hexagonal system is a matter of aesthetic choice. A hexagon has the advantage of providing a rather simple system of covering for a medium-sized room: it combines a relatively limited number of supports with relatively small dimensions for the corner semi-domes. Thus, the elements of transition become structurally less important. In a cupola of this size they lose all their structural meaning as the semi-domes, to a great extent, rest directly on the walls. At the same time the size of the decorative *mukarnas* decreases, thus providing a more balanced transition zone in the interior (*fig. 24*).

The side buttresses which have polygonal shapes are expressed in the outside configuration as turrets; here again, they are not only simple weight-towers but aesthetic elements of the exterior composition as well. The cupola is connected to the lower part of the structure by a small drum with flat buttresses: this low drum and its

²⁶ The mosque of Sitti Sultan in Edirne has a dome with a diameter of 13 meters and its walls are 1.5 meters thick; the Ayşekadın mosque in Edirne has walls 1.1 meters thick for a dome diameter of 10.5 meters.



TEXT FIG. 4.—SECTION THROUGH THE MOSQUE AND THE MEDRESE.

pilaster-like buttresses are more aesthetic than structural. The brick construction of the cupola is simple and probably without ribs.

External configuration of the complex

The mosque is surrounded by its unpretentious dependencies of one or two-stories. The most prominent part of the facade is the main entrance with its monumental pillars and projecting mass (*fig. 1*). A picturesque note is obtained by the alternate layers of stone and brick in the walls and by the chimneys of the student rooms.

From the section (*text fig. 4*), one grasps the inherent beauty of the combination of cupolas of different sizes on several levels which create a movement of pure geometrical forms (*fig. 25*). In this arrangement of small-sized domes three elements, name-

ly the main dome, the smaller dome of the class-room, and the minaret (each with its dimensional and formal nuances) dominate the composition.

The most characteristic feature of this architecture is its stratification: every strata is well-defined by a clear molding. The top molding of the porch of the mosque proper continues around the courtyard, delineating the masses (*fig. 6*). So, the level of the bases of the semi-cupolas is expressed with another molding; it continues, even on the surface of the northwest façade of the main room for no specific reason except that of the continuity of the level-limiting lines. The base of the dome constitutes another strata above which the simple, spherical dome rises without any formal emphasis. However, the dome dominates this composition as strongly as any other dome-centered composition be-

cause of the accent put on the delineation of levels.

In every mosque the upper level of the walls of the rectangular prayer-hall is shown by a horizontal line, from the outside as well as from the inside, and in every mosque design, the treatment of the cupola as crowning element is the same. Thus the most original feature of a mosque design must lie in between the levels of transition elements; and its disposition creates the originality of the central mass of a mosque. In the Sokollu mosque, the side turrets and the projecting part of the northwest abutments which constitute an attic-like façade are characteristic. The twin cupolettes on either side of this attic are common with many other hexagonal schemes, such as that of the Cerrahpaşa mosque (*figs. 26 a and b*).

The treatment of the façades

Two-storied façades are composed in a simple way. In the *medrese*, the basement is plain well-cut stone; the walls of the cells have a mixed construction of stone and brick. The upper level has two rows of windows: those of the lower row have marble frames and are rectangular; the upper row consists of arched and smaller windows with simple stucco panels and decorative brick archivolt (*fig. 27*). In the center, the lower windows of the classroom have a decorative brick arch which crowns them with a plain tympanum.

The main façade of the mosque on the side of the inner courtyard is very classical in its organization. On either side of the main portal, which is decorated with the usual *mukarnas* of precisely-cut stone (*fig. 28*), there are two bays with two rows of

windows. These windows are in very shallow recesses delineated with fine moldings; they have the usual iron-grids. On the rectangular spaces above the lower rows of windows, tile panels with religious inscriptions are placed. At both ends of this façade two small doors open to the stairs for the minaret and the galleries for women. The door leading to the women's quarter was carefully placed to the northeast corner of the façade in order to provide a maximum isolation for them. The upper part of the façade, behind the domes of the porch, is a simple rectangle pierced with three arched windows which have stucco panels composed of simple leaf-shaped elements. The corners of the rectangle are emphasized by circular semicolumns and the whole rectangle is crowned with a rather elaborate cornice (*fig. 29*).

Other façades of the main room have regular symmetrical window rows. There is no particular articulation of organized wall elements as we would see in any European building after the Renaissance. The façades of the *tekke* have a simpler treatment with less openings.

The minaret

The minaret has no structural connection with the rest of the building. It is the only element of the exterior composition which interrupts the continuous lines of the cornices, intruding its vertical body without any special arrangement in the composition (*fig. 30*). Generally speaking, the minaret of the Ottoman mosque, especially before the 16th century, was not organically connected with the main body of the building. The large compositions of Sinan show a fine knowledge of mass dis-

position in the placing of the minarets. This is not the case with that of the Sokollu mosque, however. The rather unhappy intrusion of the minaret into the composition can not be easily observed because it is hidden from the sight of the visitors coming from two main directions.

All the elements of the minaret (*fig. 31*), the polygonal shaft, the single balcony with its balustrades and stalactites, the conical roof, are typical of the period. Here, however, in the use of fine "fillets" moldings which end with an arcature, the relationship with the design of the Selimiye Mosque is detectable. This rather archaic design on the surface of the minarets can be explained by the influence of the old minarets of Edirne which have a very strong decorative character. As we have indicated before, Sinan and probably some of his pupils were spending their time in the construction of the Selimiye in Edirne during the construction of the Sokollu Mosque.

Some constructive details

The walls of the classroom consist of alternate layers of stone and brick (*fig. 29*): to a single stone layer of 26–27 cm. correspond three layers of brick, each of 3.5 cm.; the mortar between the bricks is 4 cm. or more thick, and between stone and bricks it is about 2 cm. thick. One specimen of brick measured by us has the dimensions of $23 \times 33 \times 3.5$ cm.; the same pattern is repeated on the southwest walls with a slightly different size for stones. On the walls of the prayer room of the *tekke*, the dimensions are quite the same: the mortar between the layers is 3.5 cm.; another specimen of brick has the dimension of 16×32

$\times 3.5$ cm. It seems that this 1 to 3 ration of stone and brick was in general use during the 16th century. As a matter of fact, in many of Sinan's buildings, the sizes of stones are generally similar, being 27–29 cm. in layer.²⁷ Even in the Sultan's Lodge of the Mosque of Sultanahmet, built in the beginning of the 17th century, the wall construction remains identical.

Another small detail in the use of brick is the construction of decorative arches of bricks on the same level with the surface of the wall. We do not know when this began to occur, but it is a characteristic of the 16th century buildings.

One observes in this building, as well as in some other buildings of the period, the use of big nails fixed on flat ceilings to hold stucco plaster or ordinary plaster; the nails used for this purpose on the ceilings of the side entrances have a diameter of 2 cm. For the construction of flat ceilings, the use of iron bars carrying stone slabs is also to be seen in different places, namely in the gateways and galleries.

The decoration of the monument

Are there decorative schemes applied systematically to the walls of the mosque? This problem has never been studied. However, even superficially, one can discern some common principles in the placement of inscription panels, in the employment of tiles, capital forms, etc. Here, we will attempt an analysis of the decoration of the *mihrab* wall.

The *mihrab* wall, all the pendants, the roof of the *minber*, the rectangular

²⁷ Personal communication given by Mrs. Afife Batur.

panels above the windows of the first floor and above the first row of the gallery windows are covered with tiles. As pointed out before, the central bay of the *mihrab* wall was subject to a special treatment, and the bulk of the tile decoration was applied to this space. A triple partition comprises the main scheme (fig. 16). The center is occupied by the marble *mihrab* niche, the height of which is less than that of the lower rectangle of the walls. A band of inscription completes the first lower zone: it is divided by narrow strips of tiles into quadrangles of different shapes and dimensions. Below the horizontal band of inscription, on both sides of the *mihrab*, the corresponding height is divided horizontally into three zones. The lower part is occupied by large panels which represent a kind of niche full of flowers (fig. 33); above them, there is another band of inscription. A circular medallion of inscription follows (fig. 34). The triangular spaces between these elements and the strips of tile are filled with appropriate motifs. One thing to be remarked in this first zone is the probably deliberate effort to break the regularity of the triple partition; as a matter of fact, the ending band of inscription is divided into two parts. The triple partition does not continue in the second zone; the first zone is therefore complete in itself. Indeed, a stucco molding which marks the end of the lower rectangular part separates completely the second zone from the first.

The second zone is simpler: between three windows of regular intervals and equal in size, the surface is covered evenly with tiles representing flowered stems in each interval. However, there is no dividing strip. Two medallions of inscriptions are placed between the windows (fig. 35).

This second zone which corresponds to the second transition level of the main room also ends with a large molding.

The third zone, which fills the inside of the big arch, has also three windows, the central one being obviously larger than the others. The space between these windows is covered with tiles of the same design as those of the second level; there are no strips and no medallions.

The visual importance of each zone is clearly manifest in this scheme. But at the same time, the decoration is completely subordinated to the general architectural scheme of the interior. This was an area to be enhanced by color and form but not to be expressed as a unity in itself. And this is an important point for the understanding of the Ottoman architecture and architectural decoration which maintains its validity for every period.

If one compares the decorative scheme of the *mihrab* wall with those in other contemporary buildings, one observes the complete originality and uniqueness of design. In all Sinan's mosques, no two have the same *mihrab* wall. However, since our knowledge of Ottoman architecture is not complete, we cannot say with certainty that such freedom of design should be taken as the universal hallmark of these buildings.

The use of tiles on the pendentives is also rare. In the Rüstem Paşa Mosque in Istanbul, we have another example of this device. The panels above the windows of the first floor have a symmetrical floral design (fig. 36); others have inscriptions (fig. 37). All the inscriptions are white on a blue background. The color scale of the floral panels, on the other hand, is one of the richest of the period: the famous Bolu red, blue and green are dominant hues in the

large panels on either side of the *mihrab*. To this general description I should add a few technical notes on matters already known from the publications of T. Öz, A. Lane, K. Otto-Dorn and K. Erdmann.²⁸ These tiles are examples of what Lane lists as the third Iznik style, which, according to him, is technically one of the most perfect creations of the ceramic art. They embody a wonderful glaze devoid of cracks, perfect colors, especially the famous Bolu red or Armenian bole which died out at the beginning of the 17th century.

The tiles are totally Turkish in character: a floral design of peculiar naturalism without being realistic (*fig. 35*). At this stage of tile decoration, the design is no longer restricted to a single tile and is not taken as the repetition of a single motif (except in borders) but rather covers architecturally defined panels. This development was already at hand in the Rüstem Paşa Mosque (A.D. 1560), but here it has become a general rule. Nevertheless, the composition of the panels is still far from the maturity of the 17th century and is even much less developed than the design of the tile panels in the Eski Valide Mosque at Üsküdar (A.D. 1583).

The motifs are similar to those used a few years previously in the decoration of the Rüstem Paşa Mosque: i.e. flowering plants, coiling stems with big featherlike leaves known as *saz* and floral arabesque patterns; interlaced stems with tiny flow-

ers and larger single flowers occupy the whole surface of the narrow tiles that constitute the borders. The motifs are outlined in dark colors. The famous Tomato Red is brighter and more voluminous here than in the Rüstem Paşa Mosque. This red is to be found especially on the two larger panels. The dominant green has a bluish hue; and on the roof on the *minber*, a most attractive element of the *mihrab* wall, the color is blue rather than green.

The tiles used on the wall surface are of different sizes: on the large panels, square tiles measure 22.5 × 22.5 cm.; on the sides, the tiles' dimensions are 18.5 × 24.5 cm. and on the borders, 8.5 × 24.5 cm. and 20.0 × 22.5 cm. It seems that the sizes of the tiles were dependent on the area to be covered and their design was prepared with this purpose in view. Most probably, 1 to 1 scale drawings were executed on the spot and sent to Iznik for the manufacture of the tiles. This fact is already known from contemporary court orders.

The paintings

Painting on plaster (stucco in the majority of cases) had a fairly wide application in the mosque and in the other buildings of the complex: the ceilings of the entrances, of the main staircase, of the arcades and of the cupolas of the porch were all painted. Probably the interior walls and stalactites and certainly the cupolas were painted. We have rather limited remains of painted decor on stucco and we have no means to make sure about the originality of these paintings.

In two places, however, remains of painted decoration are usually attributed to the period of construction: one is under the gallery which overhangs the main en-

²⁸ T. Öz, *Turkish Ceramics*, Ankara, 1957; A. Lane, *Turkish Pottery*, Later Islamic Pottery, London, 1957, pp. 36–67; A. Lane, *The Ottoman Pottery of Iznik*, *Ars Orientalis*, vol. 2, pp. 247–281; K. Otto-Dorn, *Türkische Keramik*, Ankara, 1957; K. Erdmann, *Neue Arbeiten zur türkischer Keramik*, *Ars Orientalis*, vol. 5, 1963, pp. 191–221.

trance to the prayer hall (*fig. 39*) and where the rectangular spaces between the consoles are filled with large quatrefoils on a red background, delineated by narrow white strips. The quatrefoils are filled in turn with violet flowers on a blue background; these large and many-petalled flowers resemble those on the tile panels, but they cannot definitely be attributed to the same time.²⁹ On the consoles are similar flower motifs on a red background. A border strip of plain red and white rosettes on a blue background surrounds the rectangular surface.

The paintings over the entrance door are also classical in character: leaves and rosettes, the strong design of flowers, and emphasized border lines show similarity in treatment with the design on the faience tiles. But any attribution to the original period would be subject to doubt. The paintings under the *müezzîn mahfeli* are not earlier than the 18th century (*fig. 40*).

There was a baroque decoration which dated probably from a restoration at the end of the 18th century on the pendentives and on the pillars. It has been replaced with newer paintings in the course of more recent restoration. Gurlitt mentions remains from the original painting on stucco (*Linienwerk*) to be seen on the ceilings of the lower galleries and which have disappeared since.³⁰

Colored glass

The windows of the prayer room have the usual stucco panels filled with colored

glass; the most important ones are on the *mihrab* wall. It seems that all these panels are from a much later date. According to Grosvenor "the only recent feature, the twelve windows of rich stained glass presented by Cevdet Paşa in 1881, are in keeping with the original design."³¹ One may deduct either that the new panels were imitations of the old ones or that they were in harmony with the rest: this last conclusion is more probable, since the design of the windows is hardly acceptable as the work of the sixteenth century. However, we learn from the anonymous author of *İstanbul Abideleri* that some fragments of the original stained glass are still to be found in the newer windows.³²

Stone carving

Moldings.

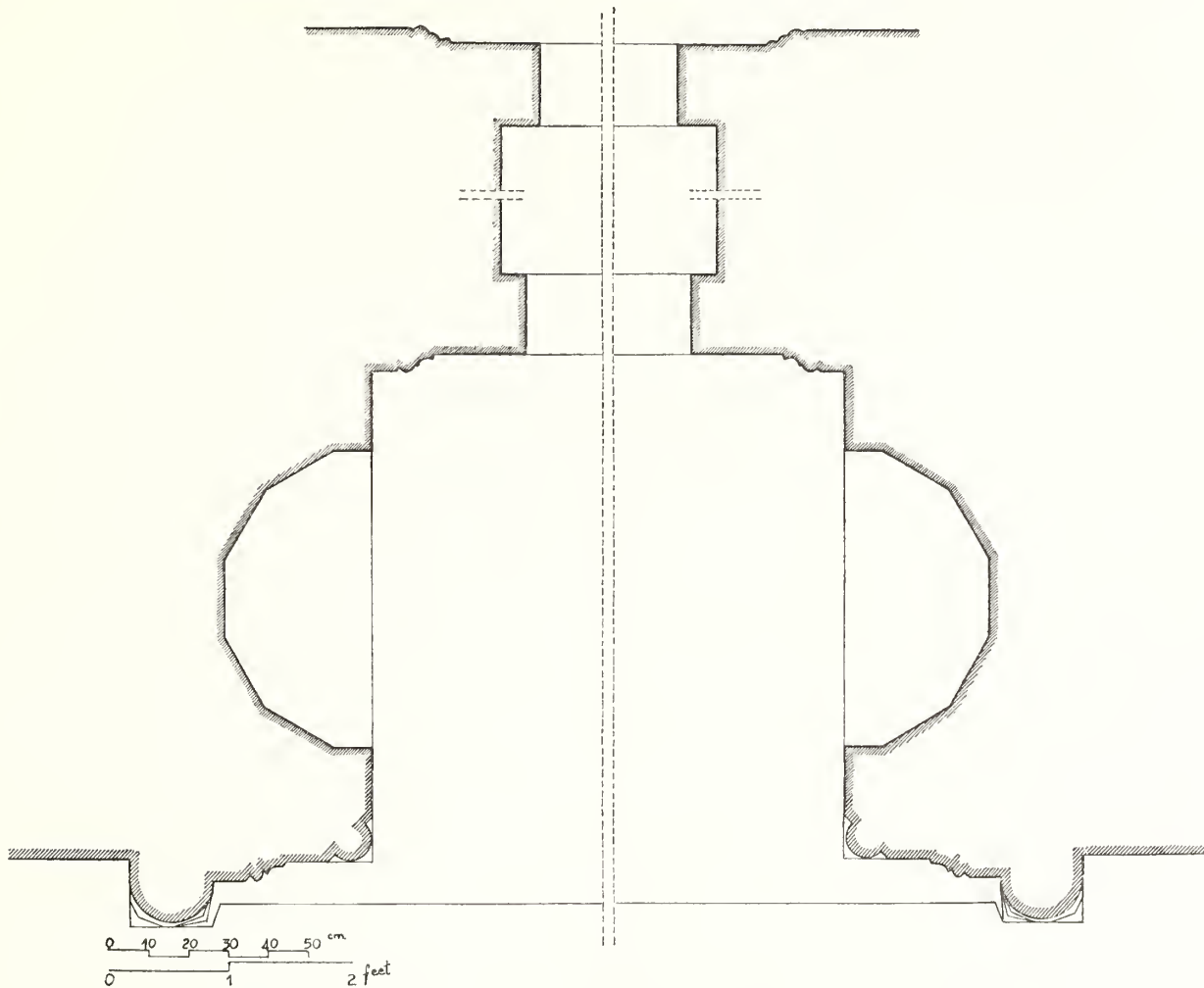
A few forms of profile have been in general use since the late 15th century. Three of them are essential, namely the tore, a kind of *cyma recta* and *cyma reversa* (called *armudî*) and the cavetto which were common. The only difference between the early period and the one with which we are dealing lies in the combination of these profiles in the composition of a molding (*text figs. 5a and b*). We find the same profiles in the Mosque of Murat Paşa in Istanbul (A.D. 1471) and in the Mosque of Davut Paşa in Istanbul (A.D. 1485) as well as others. The moldings (especially on door jambs) of the 16th century tend to have more elements than the three or four in use during the preceding century. The profiles used in the cornices are

²⁹ For further details on this painting, cf. K. Otto-Dorn, *Osmanische Ornamentale Wandmalerei*, Kunst des Orients, vol. 1, 1950, p. 51, Abb. 7.

³⁰ Gurlitt, *op. cit.*, vol. 2, p. 82.

³¹ Grosvenor, *op. cit.*, vol. 2, p. 419.

³² *Istanbul Abideleri*, p. 100.



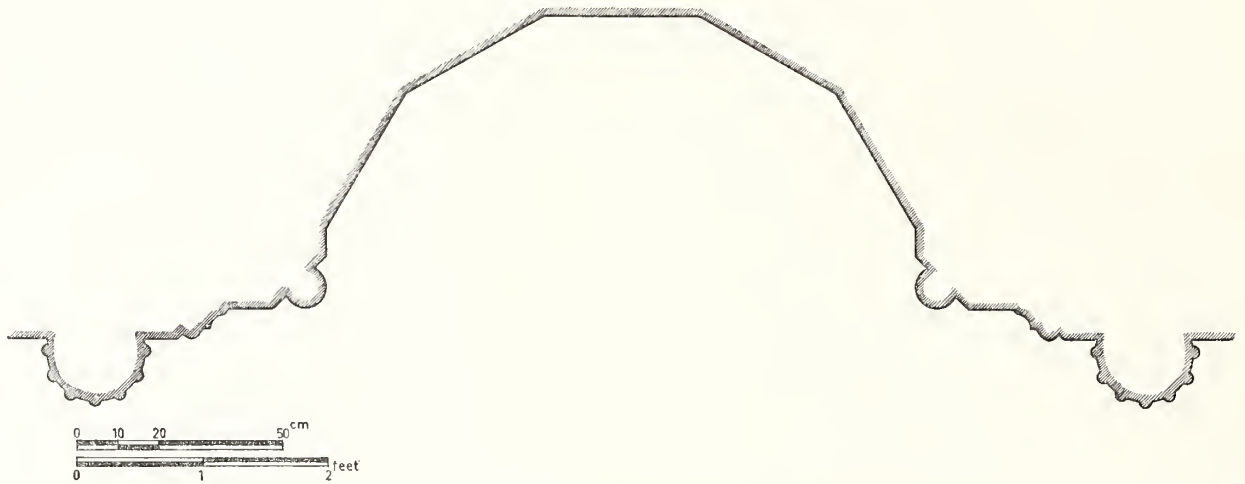
TEXT FIG. 5 a.—MOULDINGS FROM THE MOSQUE: UPPER, ENTRANCE DOOR.

a combination of the tore and the cavetto, united by either an inclined or a straight plan. Here the main cornice of the mosque is constituted by alternate sequences of two tori and two cavetti.

Capitals.

Two forms of capitals were used in endless variety by Ottoman architecture throughout the 15th, 16th and 17th centuries. Rather simple stalactite capitals

with rows of prismatique shapes have been used in the interior as well as on the exterior of the mosque (*figs. 41 a and b*). An interesting type is the capital in the upper gallery; with its smaller triangular elements and central rectangle which is a continuation of the upper surface, it brings a personal touch to the capital design (*fig. 41 c*). In general, these capitals do not have a strong plasticity and their design is not very elaborate. The lozenge shaped capitals used in the courtyard of the *medrese*



TEXT FIG. 5 b.—MOULDINGS FROM THE MOSQUE: LOWER, THE MIHRAB.

are of two types: the simplest one (*fig. 41 d*), is found in the arcades, while a more developed capital with two rows of different sized lozenges is used in front of the classroom (*fig. 41 e*).

Stucco Work.

Remains of painted stucco ceilings have been uncovered during recent restorations. Stucco has been used for the stalactites in the squinches and in the niches. The geometrical character of these stalactites is the same as that found on the capitals. In some niches, the main structure of the *mukarnas* was constructed in brick.

The *mukarnas* or stalactite design is the same for different materials, be they stucco or stone. In the case of plastered and painted or of whitewashed walls, the difference in the material is difficult to assert.

Inscriptions.

Except for a dated one, all the inscriptions are of religious nature and are excerpts from the Koran and the *Hadith*. What

rules have governed the placing of these inscriptions? Except for the date of inscription of a monument and the names of Allah, the Prophet and the first Caliphs, we know little about the distribution of inscriptions in a building. This would require a careful study which would be out of place in this article.

Conclusion

This is not a definitive study of the Sokollu Mosque. But one may conclude from the observations above that, even for a Grandvizir of the Ottoman Empire, magnificence was not to be expressed by means of a construction. The nature of civilization in the Ottoman society was not similar to that of the Renaissance, and the idea of a monument to partake of human life was not strongly developed. That is to say, a monument, even one of the highest importance, was never the focus of cultural interest, except in very rare instances, such as in the construction of the Süleymaniye. The symbolic character of a



FIG. 1.—THE MAIN GATEWAY WITH THE NORTHWEST
FACADE OF THE MEDRESE.



FIG. 3.—THE PORCH OF THE PRAYER HALL.



FIG. 2.—THE STAIRWAY TO THE COURTYARD OF THE MOSQUE.



FIG. 4.—THE ARCADE OF THE COURTYARD.



FIG. 5.—THE BAY IN FRONT OF THE CLASSROOMS.



FIG. 6.—THE PAVILION OVER THE SIDE ENTRANCE.



FIG. 7.—THE ŞADIRVAN IN THE COURTYARD.



FIG. 8.—SECONDARY GATEWAY FROM THE SOUTHWEST CORNER LEADING TO THE COURTYARD (TEKKE WALLS ON THE RIGHT).



FIG. 9.—THE MAIN FAÇADE OF THE PRAYER HALL.



FIG. 11.—THE INTERIOR LOOKING SOUTH.



FIG. 10.—ENTRANCE TO THE GALLERIES FROM UNDER THE PORCH.



FIG. 12.—THE INTERIOR LOOKING NORTHWEST.

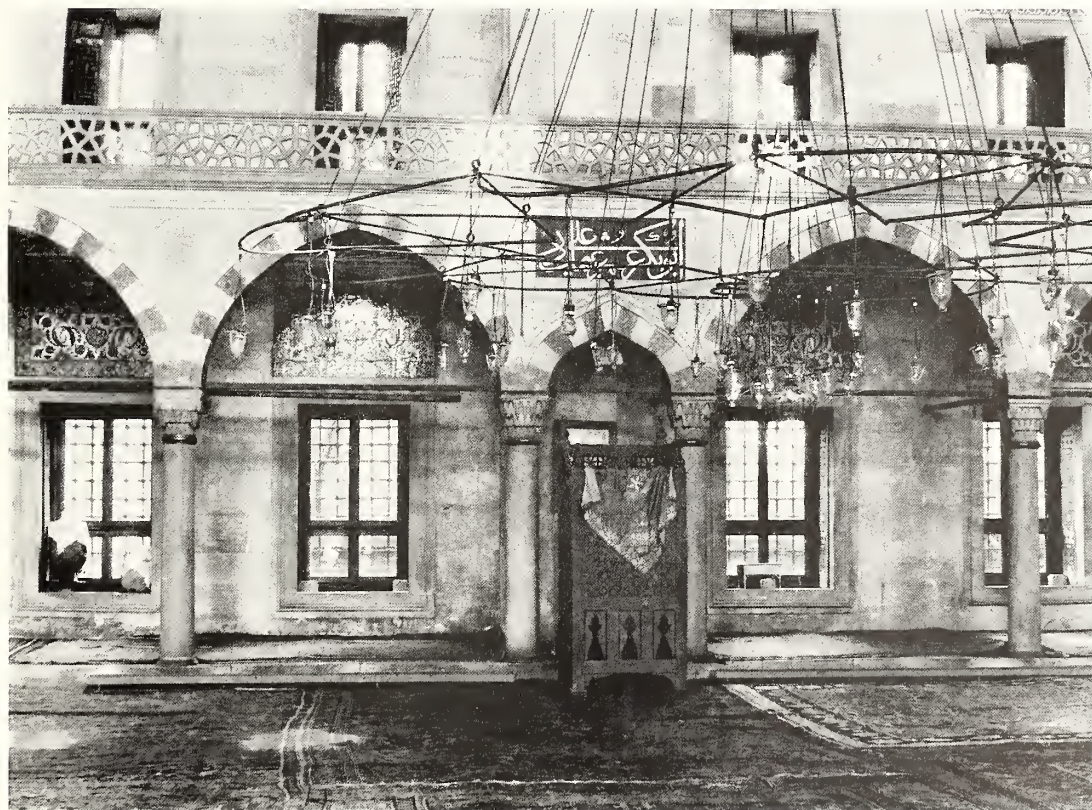


FIG. 13.—THE SIDE GALLERIES.



FIG. 14 a.—THE SIDE GALLERIES WITH MÜEZZIN MAHFELI.



FIG. 14 b.—DETAIL FROM THE NORTHWEST GALLERIES.



FIG. 15.—THE MIHRAB WALL.



FIG. 16.—STUCCO MUKARNAS.

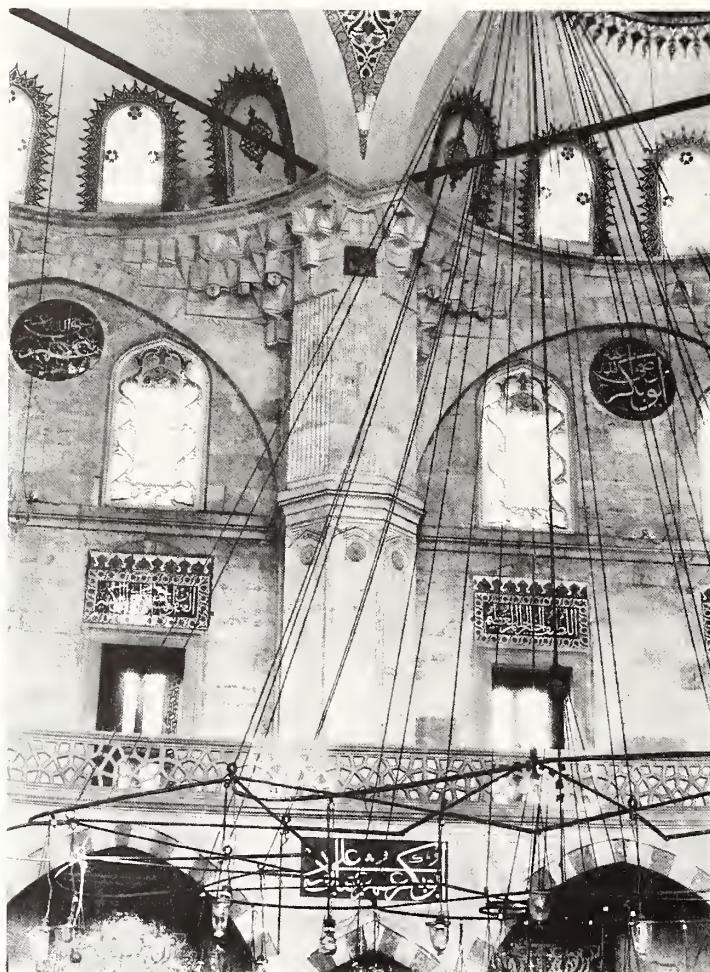


FIG. 17.—STUCCO MUKARNAS AND FAKE WINDOWS.



FIG. 18.—SOUTHWEST WALL OF THE PRAYER HALL.

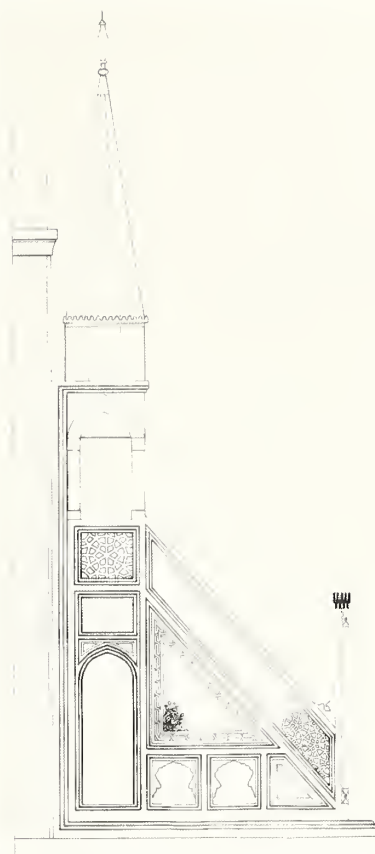


FIG. 19 a AND b.—THE MINBER.

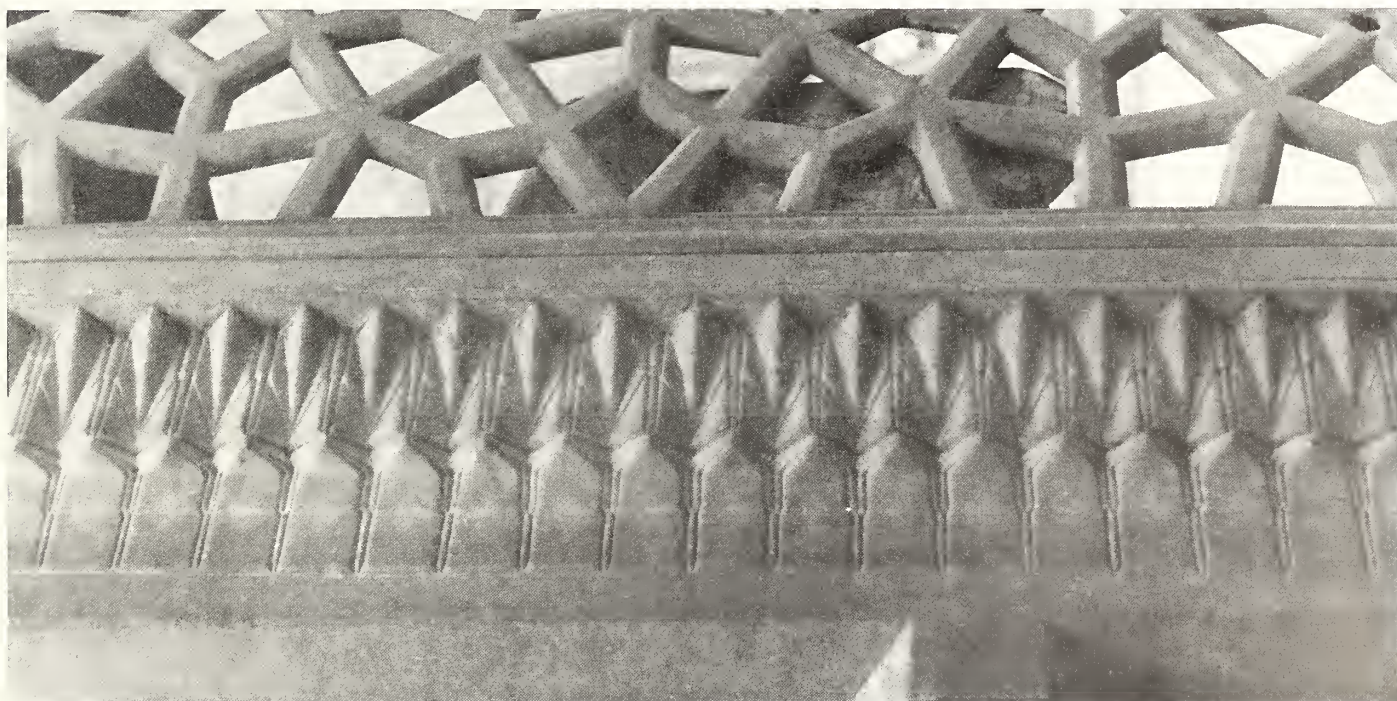


FIG. 20.—DECORATIVE BAND FROM THE MÜEZZİN MAHFELİ.



FIG. 21.—THE HOUSE OF THE SHAIKH.



FIG. 22.—ENTRANCE TO THE TEKKE.



FIG. 23.—THE BURIAL GROUND BEHIND THE MOSQUE.



FIG. 24.—SEMI-DOMES.



FIG. 25.—CUPOLAS AND THE MINARET.



FIGS. 26 a AND b.—DETAIL OF THE COPERTURE.



FIG. 27.—FACADE OF THE MEDRESE.



FIG. 28.—MAIN DOOR TO THE PRAYER HALL; MUKARNAS.



FIG. 29.—FACADE OF THE MOSQUE PROPER (THE ATTIC).



FIG. 30.—THE MINARET IN THE COMPOSITION.



FIG. 31.—THE MINARET (DETAIL).

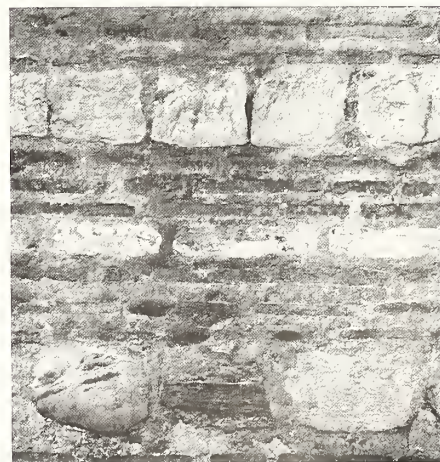


FIG. 32.—WALL CONSTRUCTION.

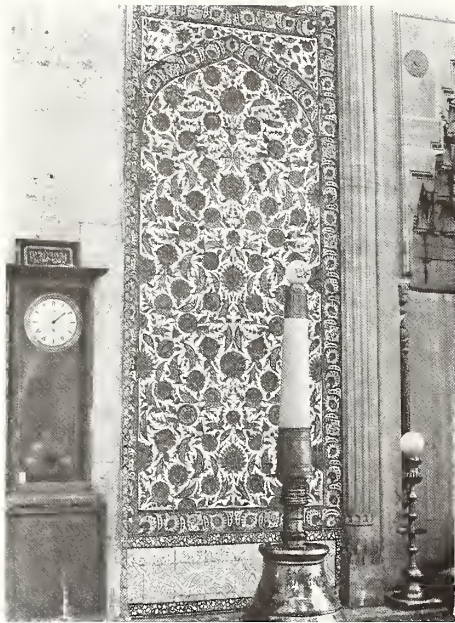


FIG. 33.—TILE PANEL ON THE MIHRAB WALL.

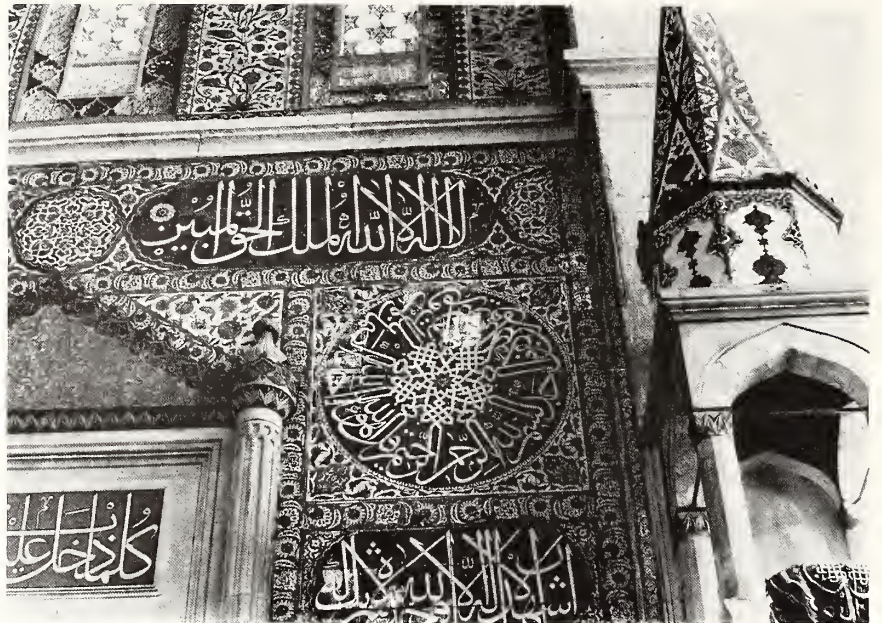


FIG. 34.—TILE MEDALLION ON THE MIHRAB WALL.

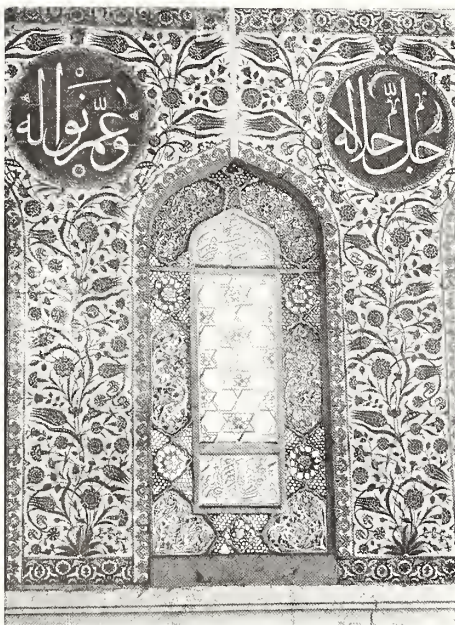


FIG. 35.—TILE DECOR ON THE MIHRAB WALL.



FIG. 36.—TILE PANEL OVER THE WINDOW OF THE SOUTHWEST WALL OF THE PRAYER HALL.



FIG. 37.—INSCRIPTION PANEL OVER THE WINDOW OF THE SIDE WALL OF THE PRAYER HALL.



FIG. 38.—DETAIL OF TILES ON THE MIHRAB WALL.



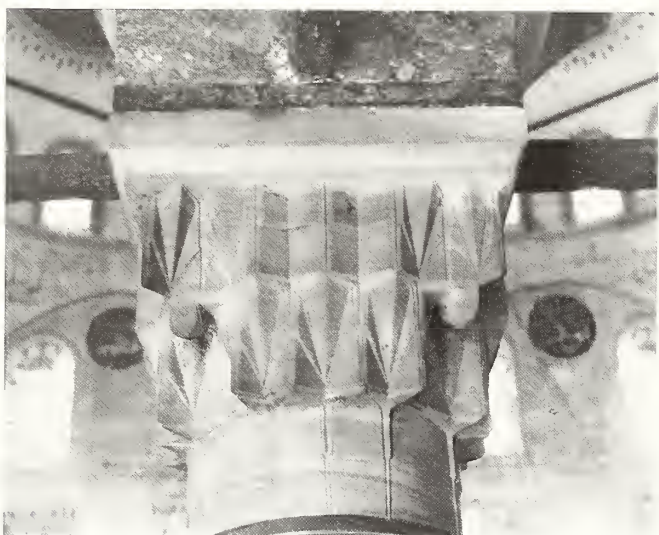
FIG. 39.—THE GALLERY OVER THE MAIN ENTRANCE.



FIG. 40.—PAINTINGS UNDER THE MÜEZZIN MAHFELI.



a



b



c



d



e

FIGS. 41 a, b, c, d and e.—CAPITALS.

monument was always surpassed by its functional importance. This is also true of the monument itself: the layout and the composition of a complex such as the Sokollu, and the *tekke* behind it, are masterpieces of architectural design. The technique of the faiences or of the stonework may be perfect, but there is always

a flaw which is the lack of a finishing touch, the failure to carry the architectural idea through to realization. This disdain for perfectionism is to be always witnessed in the linkage of the details to the whole. Nevertheless, there is a homogeneity in style, from beginning to end, even in the smallest details.

AL KHADR AND CHRISTIAN ICONS

BY D. R. HOWELL

THE GREAT POPULARITY OF ST. GEORGE in Christianity and of Al Khadr in Islam may be of more interest to students of comparative religion and social anthropology than to historians of art. It calls for comment from the latter, however, when a combination of Christian and Moslem traditions about the saint are found in works of ecclesiastical art, created in circumstances which make it almost certain that the painters appreciated the full significance of the symbols they used.

The remarkable collection of many hundreds of icons in the Old Library of St. Catherine's Monastery on Sinai includes several showing St. George mounted on a horse crossing a stream in which fish are swimming. As in those illustrated here (figs. 1 and 2), seated behind him is a small figure carrying a pot and sometimes a cup as well which is being offered to the saint. The fish, the stream and the small figure are almost certainly all elements from the Moslem stories of Al Khadr. Apart from the name of the Christian saint written in Greek letters, the icons bear no inscriptions and can only be roughly dated from their style to some period between the 15th and 18th centuries. However, they most probably belong to the late 17th and early 18th centuries when there was a certain amount of artistic activity in the monastery with the bestowal of gifts for the church which involved the installation of the present iconostasis and the redecoration

tion of the Chapel of the Burning Bush.¹ Judging by the associations of the legend the icons embody with Sinai and the Gulf of Suez (to be discussed below), it seems likely that at least some of them were painted locally and most probably in the monastery itself.² That icons referring

¹ For the installation of the iconostasis, see L. Prevost, ed., *Le Sinai*, Paris, 1937, p. 97. An inscription on it states that it was made in 1612 in Crete (M. H. L. Rabino, *Le Monastère de Sainte Catherine*, Bulletin de la Société Royale de Géographie, Cairo, vol. 19, p. 28). As the monastery was closed in 1600, 1618, 1633, and 1657 because of attacks on the supply caravans, it is not clear when the dangerous business of transporting the bulky wood iconostasis and installing it was undertaken; but it was probably not until the second part of the century. The redecoration of the Chapel of the Burning Bush is dated by a tiled inscription to 1690 (*Ibid.*, p. 33). It was also in this period that the church began to be offered gifts by European monarchs once more.

² The chapel of St. George was redecorated by a Cretan monk in 1804 (*Ibid.*, p. 135) and it may be that the icons, if they were in the chapel, were removed at this date. This is the latest date at which they might have been painted in the monastery, but they are not Cretan in either conception or execution. Furthermore, another icon in the monastery collection showing St. George of Janina suggests that the monks were more inclined at this period to think of the struggle for Greek independence than of the association between St. George and Al Khadr. In the light of the circumstances, if the icons were painted in the monastery, it seems most probable that they date from the period between the re-opening of the monastery in 1659 and the beginning of the struggle of the Greeks against the Turks in the mid 18th century.

to a Moslem tradition about Al Khadr should be found in this particular monastery is not surprising when one remembers that Mount Sinai is revered by Moslems as well as by Christians and Jews, and that since the first decade of the 12th century there has been a mosque next to Justinian's Church of the Transfiguration. Furthermore, one visitor to the monastery early in this century recorded that the Moslem Bedouin believed the church had miraculous powers of healing and that it was their custom to sit for hours in the church in the hope of removing barrenness and other ills.³ How old such a practice is it is impossible to say since the monastery's relations with the surrounding tribes has been a chequered one, and at times the entry of tribesmen into the monastery has been carefully controlled.⁴ Nevertheless, even if there was not unrestricted entry to the

church and the monastic precincts for the Bedouin, it would have been difficult for the monks, isolated in the desert and dependent on their neighbours for labor and the safety of their supplies, to have avoided learning a good deal about Moslem traditions and legends from their servants and visitors.⁵

The legend of Al Khadr in particular was a topic which was not unlikely to arise, for the latter is held in high regard not only amongst Moslems generally but also among the less orthodox Bedouin.⁶ St. George is a much revered saint amongst the Greeks; and in the Athonite communities from which St. Catherine's still draws part of its strength he was often portrayed, in the 15th and 16th centuries, as first amongst the martyred saints. Almost always his image is to be found on the front of the iconostasis and in public parts of Greek

³ C. T. Currelly, *Researches in Sinai*, London, 1906, p. 253.

⁴ In 1579, for instance, the Arabs were forbidden to enter the monastery, even to use the mosque (E. Blochet, ed., *Relation du Voyage de Carlier de Pinon*, Paris, 1920, p. 220); and Burckhardt in 1816, like many earlier visitors, reported that apart from the servants of the monastery no Bedouins were allowed inside the precincts during the day, and even the servants had to go out at nightfall (J. L. Burckhardt, *Travels in Syria and the Holy Land*, London, 1822, pp. 554, 563).

⁵ The servants of the monastery are believed to be descended from a group of Moslemized Christian slaves sent by Justinian, and the servants of the mosque are the descendants of a group of educated Turkish pilgrims who were stranded in the monastery on the way back from Mecca in 783 A.H. (A.D. 1381). Apart from these, the monks would have had dealings with the sheiks who were entitled to yearly presents from the monastery and with Moslem pilgrims who came to visit the Mount of Moses on their way to or from Mecca. The

monks were in fact charged with the protection of pilgrims to Mecca during their journey across Sinai (*Ibid.*, pp. 547-548). The relations of the monastery with its Moslem visitors and neighbors is documented in the monastic records, but as far as I am aware only Burckhardt and Porphyrios Uspensky in the 1850's have been able to partially examine these archives.

⁶ In the precincts of the Haram esh Sherif in Jerusalem there are no less than four shrines of Al Khadr, and one of them is on the Holy Rock itself (T. Canaan, *Mohammedan Saints and Sanctuaries in Palestine*, Luzac, 1927, p. 121) which is a fair indication of the general regard for the saint in Islam, even if it were not further attested in literature (see A. J. Wensinck, *Al Khadr*, *Encyclopedia of Islam* and E. W. Lane, *Arabian Society in the Middle Ages*, London, 1883, p. 103). Burckhardt (*op. cit.*, pp. 149, 595) records the veneration of Al Khadr by the Bedouin, as does C. Doughty, *Wanderings in Arabia Deserta*, London, 1888, and G. Bell, *The Desert and the Sown*, London, 1907, pp. 94-96.

monastic churches.⁷ St. Catherine's monastery collection contains several other icons of the saint and one of them, among the largest of all their surviving icons, was formerly prominently displayed in the church.⁸ It is most unlikely that Moslem visitors to the monastery would not have remarked on the veneration of St. George and commented on his connection with Al Khadr. Moreover, it seems that there may have been a considerable awareness by the

⁷ In the representation of the Liturgy in the sanctuary, the revision of Panselinos, made by the monk Dionysios and his pupil Cyrillos, recommended that St. George should be placed first amongst the martyrs (M. Didron, *Manuel d'Iconographie Chrétienne*, Paris, 1845, p. 286). The second assertion is based on personal observations made on Mount Athos in 1963.

⁸ Rabino, *op. cit.*, p. 47. It is now displayed in the Picture Gallery of the New Library at St. Catherine's monastery.

⁹ The chapel is not mentioned by name until 1579 when Carlier de Pinon placed it first amongst the chapels of the monastery (de Pinon, *op. cit.*, p. 218) and R. P. Archimandrite Eugenios Simandrakis, the present Sacristan, suggests that it is three or four hundred years old.

¹⁰ It is not quite clear at which point the attacks of the Bedouin were at their worst, but according to Arabic documents in the monastery seen by Burckhardt, between 1398, when the Mamelukes were still ruling Egypt, and A.D. 1643, the habitations of the monks were reduced from six other convents as well as chapels and hermitages to just the monastery and its two dependencies in the Wadi Ferhan and at Tor. In the monastery the number of monks also declined from 140 in 1579 to 25 in 1630. Furthermore in the first part of the 17th century, the monastery was closed in 1600, 1618, 1633 and 1657-59 (M. Labib, *Pèlerins et Voyageurs au Mount Sinai*, Institut Français d'Archéologie Oriental, Cairo, 1961, p. 107) as a result of attacks on the supply caravans and on the monastery itself. On the last occasion, de Thevenot explained that the monastery was abandoned for two years in order to teach the tribes a lesson (J.

monks of the respect of the Bedouin for Al Khadr and St. George, for above the original main entrance to the monastery is a small chapel to St. George which is said to be three or four hundred years old,⁹ and was therefore apparently built when the monks were having their greatest difficulties with the tribesmen.¹⁰ One cannot help feeling that the community (which had been astute enough to invent what might be called "The Donation of Mohammed"¹¹ to en-

de Thevenot, *Relation d'un Voyage fait au Levant*, Paris, 1665, p. 323). Since the monks distributed a considerable amount of largesse this action may have had the desired effect of bringing the Bedouin to see reason. Although the monastery was inaccessible to Europeans until 1697 and was again abandoned in 1731-33 (Labib, *op. cit.*, p. 107), the attacks seem to have been at their worst between the Ottoman conquest of Egypt and the second part of the 17th century, and probably reached their peak in the first sixty years of the 17th century. From the second half of the century, the monastery seems to have revived and by 1701 the number of monks had reached 50. However, it is apparent that the monks had longer memories than the Bedouin; for from the second part of the 17th century, the main entrance was kept closed and the chair and pulley system above it which previously had only occasionally been used was the invariable means of entry.

¹¹ The monks claimed that Mohammed had given them a document, written by Ali and attested by 20 other witnesses in Medina, confirming the sanctity of the monastery and urging its protection on all believers. Amongst others privileges it required Moslems to help the monks rebuild their ruined churches. After the Ottoman conquest of Egypt, when Selim I heard of this document actually bearing a thumbprint of the Prophet, he sent for it and replaced it with a firman of his own. As the document of Mohammed was said to have been written after a supposed visit to the monastery, it is likely to have been forged by the monks themselves, and one is reminded of the notorious Donation of Constantine used in support of Papal claims of privilege against the Emperors.

sure the monastery against the rapacity of the rulers of Egypt, and had had long experience dealing with their neighbours) in choosing to site a chapel dedicated to this particular saint at such a strategic point, was consciously trying to use the superstition of the Bedouin¹² to prevent all out attacks on goods and pilgrims arriving at the monastery.

That Moslems for their part were in no doubt about the identification between St. George and Al Khadr is well attested,¹³ particularly by one interesting account given by the Imperial ambassador to the Porte who made a journey in southern Turkey in 1555. After describing how at a dervish *tekke* at Tekiyeh he and his companions had been instructed in the details of Al Khadr's deeds, he adds:

I must not forget to tell you that the Turks shake with laughter when they see in Greek churches pictures of St. George whom they declare to be their own Chederle,¹⁴ with a boy sitting on the haunches of his master's steed mixing wine and water for him—for this is the manner in which St. George is painted by the Greeks.¹⁵

¹² Burckhardt on his visit to the monastery in 1816 recorded that the Bedouin offered prayers to the saint outside the entrance just below the chapel, and that he himself was invited to a feast held in honor of Al Khadr who had successfully intervened to restore the health of an important member of the Oulad Said tribe (Burckhardt, *op. cit.*, p. 595).

¹³ Wensinck, *op. cit.*, vol. 2, p. 915.

¹⁴ The Turkish term for Al Khadr is Khidr Ilyas (I. Friedlaender, *Al Khidr*, Encyclopedia of Religion and Ethics, Edinburgh, 1914).

¹⁵ C. H. Forster and F. O. B. Daniel, eds., *The Life and Letters of Ogier Ghiselin de Busbecq*, London, 1881, vol. 1, p. 151.

It is this figure of the boy in the present series of icons which first calls for comment. Small human figures mounted behind equestrian saints are not uncommon in late icons and frescoes of the Eastern Churches. St. Demetrius, St. Theodore, and St. Sergius have all been depicted in this way,¹⁶ but "the boy" behind St. George makes his appearance earlier than the other accompanying figures and is less obviously explicable than the symbolic priests behind St. Demetrius and St. Theodore, or the rescued individual frequently mentioned in the hagiographies of St. Sergius. Professor Talbot Rice has already drawn attention to the series of icons where the figure behind St. George appears (the first of which is said to date from 1327), and has discussed the difficulty of interpreting the figure's significance.¹⁷ It has been suggested that the so-called boy is the squire of the saint; that he is a misunderstood borrowing from Persian representations of Bahram Gur which show him out hunting with his female lutanist Āzāda riding behind him; and also that the figure represents a coffee seller who insisted on riding with St. George when he was summoned to go off in pursuit

¹⁶ A fresco in the church porch at Vatopedi on Mount Athos, for example, shows St. Demetrius with the figure of a priest riding behind. Other icons of this saint and St. Theodore dating from the 17th century have this feature. For a popular depiction of St. Sergius with a figure behind him and a hagiography explaining it, see J. Carswell, *Coptic Tatoo Designs*, American University of Beirut, 1961. Armenian churches in Julfa also have 17th-century paintings showing the saint with a figure seated behind.

¹⁷ D. Talbot Rice, *The Accompanied St. George*, Proceedings of the Sixth Byzantine Congress, pp. 387 ff.

of the dragon before he had time to drink the coffee he had ordered. A variation of the latter explanation is that the figure is a server at a communion service who rode with St. George when he was interrupted in the middle of his devotions by the news that the dragon was at hand.¹⁸ As Professor Talbot Rice has pointed out, the figure is unlikely to be a squire, and none of the other explanations is entirely satisfactory. In the depiction of Mar Behman in a Syrian Orthodox icon (*fig. 3*),¹⁹ there is a perfectly clear demonstration that Christians were under no misapprehension about the sex of Bahrām Gur's companion; and when it fitted the story they had to illustrate, they borrowed even at a recent date from the Persian tradition without making a mistake.²⁰ Another small difficulty is that until the 16th century Bahrām Gur and Āzāda are shown riding on a camel and not on a horse; and when in the 16th century the horse makes an appearance in the illustrations, Āzāda is placed on a separate one from Bahrām Gur.²¹ As for the coffee seller explanation, if the pot is carefully examined and compared with metal containers in use in the Eastern Mediterranean, it will be seen to be an ewer rather than a coffee

pot, an understandable confusion on the part of the originator of the explanation, since until the 15th century at least ewers were small and squat in shape.²² In the earlier icons the vessel might therefore now easily be mistaken for a coffee pot. The mistake, however, underlines the fact that the explanation is a good deal later than the introduction of the figure. The suggestion of a server at the Eucharist is more in line with the depiction of an ewer, for an ewer is used in the ablutions of the priest and of the vessels. The "boy," however, is not dressed as if to fill this role. In addition, if this explanation is considered it makes little sense, for it would appear that the celebrant priest must have been deprived of an important part of the means of performing correctly the most sacred rite of the Church for nothing better than the sudden whim of an attendant whose appearance at the fight with the dragon served no useful purpose and gave no help to the saint. It is an even odder explanation if it is to be understood that the saint, while still a soldier and before his martyrdom, was the celebrant. Both these explanations in their lameness, therefore, seem like attempts made at a very much later date to

¹⁸ *Ibid.* I am also grateful to Professor Talbot Rice for pointing out the last explanation which he has found in a Greek Synaxarium.

¹⁹ The icon is from the Syrian Orthodox Convent of St. Mark in Jerusalem. For the cult of Mar Behman, see J. Leroy, *Moines et Monastères du Proche Orient*, Paris, 1958, pp. 233–43.

²⁰ The figure seen behind St. Sergius also offers a parallel with Bahrām Gur and Āzāda, and particularly where the Armenian Orthodox paintings are concerned may well have been influenced by Persian illustrations.

²¹ The Sassanian tradition of the camel was continued into the 15th century and can be seen,

for instance, in a manuscript in the British Museum (Add. 18 188 fol. 353). A typical 16th-century miniature of the same subject is to be found in the British Museum (Orient. 2265 fol. 211).

²² A pair of typical 15th-century ewers are illustrated by D. Barnett in *Islamic Metalwork in the British Museum*, London, 1949, pls. 6–7. John A. Pope, in *Chinese Porcelains from the Ardebil Shrine* (Smithsonian Institution, Washington, 1956, pp. 87–88), has shown conclusively how through the influence of Chinese porcelain the form of the ewer changed to become the well-known Persian type in the 16th and 17th centuries and has since degenerated into the tourist coffee pot.

explain away a tradition, the true origins of which had been forgotten.

It is possible that the figures may have represented donors or individuals for whose special protection the saint's name was invoked, and that stories were later built up round them. This would fit the diminutive size of the figures, which are never in scale with those of the saint. When the saint appears with human beings in other icons, except when they are donors or where an attempt at conveying an impression of distance between the personages is made, the human beings are usually portrayed in the same dimensions as the saint. However, if originally they were intended to be donors, one would expect the figures at least in the earliest icons to be placed in a more supplicatory position. One would also expect rather more variety in the appearance of the figures than is usually the case. Furthermore, this explanation does not seem to fit the Sinai icons, for they are a little unusual in that in all of them the saint is shown actually embracing the figure, the bodies having been contorted against all physical probability in order to make it clearly apparent. The saint's embrace places the figure in an intimate relationship with him, and if it is intended to be human the spectator is left questioning the propriety of the gesture. Probably the most plausible reason for the introduction of the figures behind equestrian saints is that they were supposed to remind those who looked at them of some quality, spirit, or alter ego associated with the saint.²³

In the case of St. George those who feel that the attendant introduces a definitely oriental reference into the iconography of the saint are probably right, for there is a

case for believing him to be a personification of Al Khadr. The first icon on which the figure appears came from Erzerum, where apparently it was highly venerated.²⁴ It would not be surprising if, from this remote area of eastern Turkey where especially in the 13th and 14th centuries Christians of various sects, Moslems, and pagans all met, religious art reflected an attempt to appeal to as wide an audience as possible. This was a period of considerable Nestorian missionary effort, when between 1281 and 1317 the Patriarch Jahballaha III had 25 bishops working in Persia, Mesopotamia, Turkestan, India and China.²⁵ The icon in question has been repainted and it is conceivable that it may have started its life even further to the East than Erzerum amongst members of the Orthodox Church who were responding to a Nestorian challenge in the race for converts. Its date places it in the year after the conquest of Bursa by Orkhan; and it also belongs to the middle of the second great wave of Islamic conquest in the

²³ The priest behind Demetrius could, for instance, be interpreted as the spirit of the Church.

²⁴ Lynch, who first remarked on it, said the icon had been brought by one of the Greek community from Erzerum at the time of the frontier dispute between Russia and Turkey in the 1830's and 40's when many of the Greeks living in the city moved to Alexandropol. He was not able to examine the icon closely and merely reported that it was said to bear the date 1327, noting in addition that it had been repainted. From his photograph it seems as if probably only the head of the saint remains from the original painting (F. Lynch, *Armenia, Studies and Travels*, London, 1901, vol. 1, p. 128).

²⁵ A. Fortescue, *The Lesser Eastern Churches*, London, 1913, p. 98; and E. Tisserant, *L'Eglise Nestorienne*, Recueil Cardinal Tisserant Louvain, 1955, vol. 1, pp. 210-275.

Middle East which swept away the last remnants of Byzantium and placed the nerve center of the Greek Church and many of the other Eastern Churches in the middle of a dynamic Moslem theocracy. It would therefore not be surprising if, after a compromising tradition had been established in the reaction to the setting up of the Ottoman capital in Constantinople a century and a quarter later, the real reason for the introduction of the figure was conveniently forgotten and new explanations (such as those already mentioned) were invented. This hypothesis is strengthened by remembering the atmosphere of toleration which had existed away from the centers of orthodoxy during the 13th century and just prior to the painting of the icon.²⁶ At this period not only were Moslem rulers using the image of St. George on their coins,²⁷ but the wife of one Seljuk official in southern Turkey even felt firmly enough established in the years between 1283 and 1295 to dedicate the new decoration of a church to the Christian saint, and to have a portrait of herself and her husband included amongst the paintings.²⁸

²⁶ Particularly in areas under Seljuk domination. See O. Turan, *Les Souverains Seljoukides et Leurs Sujets Non-Musulmans*, *Studia Islamica*, Paris, 1953, vol. 1, pp. 65-101.

²⁷ S. Lane Poole, *Catalogue of Oriental Coins in the British Museum*, London, 1875-83, vol. 3, pls. 3 and 4.

²⁸ N. et M. Thierry, *Nouvelles Églises Rupestres de Cappadoce*, Paris, 1963, pp. 201 ff. The donatrice, the Lady Thamar, apparently a Georgian, was the wife of a Seljuk Christian feudatory. Her husband is shown in one of the frescoes wearing a large turban. Donations to Christian churches later on under the Ottomans tended to be rather more surreptitious, and indeed were difficult to make legally until the late 17th century, unless they could be disguised as repairs or restorations.

There is even evidence of subtle and therefore well understood exchanges. Blochet has drawn attention to a 13th-century illustration of a Persian occult treatise *Deik al Hakaik* (Bibliothèque Nationale Mss. Persan 174) which is somewhat spectacular in that he has been able to trace a direct relationship between the depiction of the angel Samhouras on horseback killing a dragon and Byzantine icons.²⁹ As well there is the disputed ground of the painting of the Jacobites and Nestorians in northern Mesopotamia and Persia in the 13th century where there were borrowings between Christian and Moslem illustrators,³⁰ or where, as earlier under the Umayyads and later under the Safavids, the same craftsmen were probably employed by patrons of both religions. In this atmosphere of give and take, it is quite possible that artists may have been commissioned or allowed to portray the Christian saint in a manner which would make reference to the other aspect of him as Al Khadr.

²⁹ E. Blochet, *Études sur le Gnosticisme Musulman*, *Rivista degli Studi Orientali*, vol. 2, 1908-09, pp. 717-756. Blochet traces a relationship between the depiction of Samhouras and St. George. Since the figure of the angel is bearded, and rides from right to left, the inspiration seems much more likely to have been a portrayal of St. Theodore, who is also sometimes shown fighting a dragon. While this invalidates much of Blochet's argument, the essential point of the borrowing from Christian sources remains.

³⁰ See Sir T. W. Arnold, *The Old and New Testament in Muslim Religious Art*, Oxford University Press, 1932; H. Buchtal, *The Painting of the Syrian Jacobites and its Relation to Byzantine and Islamic Art*, Syria, vol. 20, 1939, pp. 136-150; and J. Leroy, *Les Manuscrits Syriaques à Peintures Conservés dans les Bibliothèques d'Europe et du Proche Orient*, Paris, 1964.

Unfortunately there is only the evidence of what one sees. It is significant, however, that the figure is always represented carrying a pot which, as has been pointed out above, most often resembles a water ewer. Furthermore, on close inspection, although there is a difference in scale between the two figures, the attendant does not appear to be noticeably more youthful than St. George. The personage represented thus seems to be some kind of adult servant who is associated with water. If one looks at the literature connected with Al Khadr this depiction of the attendant would fit traditional descriptions of the Moslem saint. In *Sura XVIII*, 59–81, of the *Qu'ran* which has generally been taken to refer to Al Khadr, he is described as "a servant of our servants," and outside the *Qu'ran* has been described as Alexander's cook.³¹ This would fit the humble attire in which he is dressed in these icons. He is shown in all of them in a simple robe and hat which, as in Persian illustrations of religious themes,³² gives him a contemporary appearance while St. George remains in the dress of a Byzantine cavalryman. Unlike the prophets in Moslem miniatures, however, he wears a hat and not a turban. This may be an attempt to stress his humble position or more probably is a concession to Christian sentiment. Al Khadr's great discovery was the spring of immortality and surely it is water from this spring that he is meant to be carrying and with which he is refreshing the saint in one of the Sinai icons (*fig. 2*). It

would also seem reasonable in the case of other icons that St. George should have with him the means of restoring his vitality as a prophylactic for the fight with the death dealing dragon.

Be that as it may, in the icons illustrated here there can be no doubt about the stream and the fish beneath the horse's feet. The story of Al Khadr, like many other Moslem legends and like the Christian legend of St. George itself, represents a complex mixture of sources, which if they are analysed and traced to their origins seem somewhat incompatible. The pre-Islamic basis of the Moslem story of the finding of the spring of immortality is contained in the Romance of Alexander by pseudo-Callisthenes, written in A.D. 300. This tells how Andreas, the cook of Alexander, during a journey with his master found the spring of immortality when he was washing a dried and salted fish in a stream, and it recovered its vitality and swam away. He jumped into the stream after the fish and became immortal. Then Alexander, in anger at not finding the stream again for himself, threw his cook into the sea with a stone around his neck and Andreas became a sea demon. In the Koran this myth has been somewhat modified and there is only a brief reference to the Alexander story. In *Sura XVIII*, Moses and his servant go on a journey, and the servant loses a dried fish, which was to have been their meal, in the same way as Alexander's cook is said to have done. When they have gone a little way, the servant, taking care to blame Satan for the disaster, confesses what has happened, but to his surprise his master replies that he has clearly found the spring of immortality and that they must return to try to find it

³¹ Friedlaender, *op. cit.*, and more extensively in *Die Chadhirlegende und der Alexanderroman*, Berlin and Leipzig, 1913, gives details of this.

³² See for example, the reproductions of T. W. Arnold's, *Painting in Islam*, Oxford, 1928.



FIGURE 1



FIGURE 2



FIGURE 3

again, for the spring is the object of their journey. At this point a new element is introduced: for on their return Moses meets "a servant of our servants" who performs a number of deeds, each one strange and inhuman in itself, but based on judicious reasons. This second element appears to have been taken from the Jewish legend of Rabbi Joshua ben Levi who lived in the middle of the third century A.D. The Prophet Elijah was said to have travelled in his company and revealed to him the working of Divine Providence through similarly performing a number of strange deeds. The rest of the *Sura* then takes up themes from the Romance of Alexander. Despite recent criticism of his views, and whatever philosophical connection one may make between the finding of the spring of immortality and the ethical lessons of Al Khadr's acts, it is difficult not to agree with Friedlaender that fragments of separate stories have been rather unskillfully joined together. In consequence of this scissors and paste activity there are ambiguities in the information about Al Khadr, and in their efforts to expand the *Sura*, Moslem writers have created further confusion by including local versions of earlier legends in their accounts and commentaries. The elaboration of the Qu'ranic story has, however, often made it easier for Al Khadr to be identified with the Christian saint. In the *Iskender Nāmeḥ* of Nizāmi, for instance, Al Khadr was given almost Biblical respectability by finding the fountain of life, or the spring of immortality, in the company of Ilyas, while earlier in the same account, as well as in other literature, Al Khadr reverted to the position of Alexander's companion, but was often promoted to be a general or

Vizier,³³ thus providing a parallel with the army officer of the Christian story, and another reason why Al Khadr and St. George could be easily assimilated in each other.

Although different stories about Al Khadr were to be found in different parts of the Moslem world, everywhere and in both the Koran and other literature, his connection with the spring of immortality and the restoration of fish is very strong. In northern India Kwajr Al Khadr has been represented fairly often seated or standing on a fish, and Coomaraswamy has shown how from the 16th century the depiction of Al Khadr with fish at the spring of immortality was an important theme in Persian and Moghul art.³⁴ In Syria, Al Khadr is regarded as the patron of fishermen and sailors and this belief is shared by some of the Eastern Christians. Today in Lebanon, two important centers of fishing on the coast have Maronite churches dedicated to St. George and in both places the connection of the saint with vitality is marked by cult practices designed to revive ailing male children.³⁵ However, in Christian literature there is no well-known legend which connects St. George with the sea, and although the Lebanese and Syrian

³³ Friedlaender, *op. cit.*, vol. 7, p. 694.

³⁴ A. K. Coomaraswamy, *Kwaja Khadir and the Fountain of Life in the Tradition of Persian and Mughal Art*, *Ars Islamica*, vol. 1, pp. 173-182.

³⁵ The main part of the rite consists of plunging the child into cold water where a spring and the sea meet. At both Tabarja and Jounieh the grottoes where this rite takes place are almost directly beneath the church. The parallel with Al Khadr is an interesting one: in Moslem stories through plunging into the stream Al Khadr becomes immortal, and hence his name which means green, and here children are plunged into a stream dedicated to St. George to restore them to vitality.

beliefs probably belong in origin to an ancient pagan cult from which the Andreas episode in the Romance of Alexander stems, only the Moslems would be able, if pressed, to explain them in terms of their own faith.

Nevertheless, there is likely to have been little difficulty in reaching agreement in the monastery about the admissibility of a representation of St. George with the fish and the stream. When the monastery began to receive embellishments and costly presents from the Patriarchs and European monarchs at the end of the 17th century and during the 18th, it is very probable that the monks were inclined to have icons in their possession which they could display in the chapel, strengthening still further a connection between Al Khadr and their own precincts, and emphasising the identification between the Moslem and the Christian saint. Apart from the common use of the fish as a Christian symbol in other contexts, a number of the monks have always come from Syria and would have been familiar with the association of St. George and sailors, fishermen and the sea, as well as with the commingling of Christian and Moslem cults.³⁶ Moreover, not only might the community have been anxious from the end of the 17th century to strengthen the significance of the chapel to Al Khadr/St. George above the entrance, at a time when the monastery was becom-

ing conspicuously more affluent, but with the decline in the number of pilgrims from Europe in the 17th and 18th centuries, they may also have wished to establish a closer link between the monastery and the spring of immortality in order to attract more local pilgrims. In the Koranic story, Moses and his servant were said to be travelling to the *majimah al-bahrain*, which Al Tabari interpreted as the place where the Greek and Persian seas meet.³⁷ If the metaphor which also must refer to the region of the spring of immortality is taken literally this could mean either the Straits of Gibraltar or, with rather less stretching of geographical fact, the Gulf of Suez. On the mountainside above the monastery there was already the mark where Mohammed's camel had rested its foot,³⁸ and the rock with which Elisha had been saved by an angel; in the monastery itself there was the place where Moses had seen God in a bush as well as the relics of St. George, the wonder working bones of St. Catherine, and the chapel of Al Khadr. It would no doubt have also been useful if the monks could have suggested that somewhere amongst the numerous wells and seasonal springs in the vicinity there was one which gave immortality.

In the late 17th century, after the traumatic experience of the defeat at Mohacs, and even more after the Peace of Carlowitz, the Ottomans relaxed some of the

³⁶ The phenomenon is not confined to the veneration of saints. The cult of the Virgin is another example. The church dedicated to her in the Greek Convent at Saidnaya, near Damascus, has for centuries been frequented by Moslems and Christians. The same is true of a chapel in the Beirut *souk*. See also J. Weulersse, *Paysans de Syrie et du Proche Orient*, Gallimard, 1946, p. 214.

³⁷ Al Tabari, *Tafsir*, XV 163.

³⁸ In 1722, it was reported that "...the Greek monks acknowledge that this mark was made by themselves, to gain the more veneration from the Turks for this holy mountain." *A Journal from Grand Cairo to Mount Sinai, Translated from a Manuscript Written by the Prefetto of Egypt*, Rt. Rev. Robert Clayton, trans., London, 1810, p. 244.

restrictions under which their Christian subjects lived, and in an atmosphere of greater freedom and less hostility Christian communities could afford to be less on the defensive against Islam.³⁹ Indeed, in ecclesiastical circles, and particularly in Jerusalem, under the jurisdiction of whose Greek Patriarch the monastery and the Archbishopric of Sinai came, as the disputes about rights in the Holy Sepulchre once more came to the fore, the Moslems were often less feared and hated than rival Christians.⁴⁰

When all these factors were combined, circumstances were propitious for the in-

troduction of another somewhat unorthodox motif from Islamic tradition into Christian iconography. These icons from Sinai are therefore remarkable and perhaps isolated examples of the voluntary illustration of Moslem themes by Christian artists. If, however, in addition to the borrowings of Islamic artists from Christian iconography, similar late examples of this reverse phenomenon were to be found elsewhere, it would be necessary to modify still further the neat concepts of separate Christian and Islamic arts in the Eastern Mediterranean.

³⁹ H. A. R. Gibb and H. Bowen, *Islamic Society and the West*, Oxford, 1957, pp. 236 ff.

⁴⁰ The quarrel, always just below the surface, was brought into the open by the efforts of the Latins, under the protection of France, to regain earlier privileges they had held in the Holy Places. The Turks procrastinated over the requests made to them, though not always without advantage to themselves, since at one point in 1676 the Greek Patriarch in Jerusalem was alleged to have given the Governor of the city a *douceur* of 50,000 piastres to stop the implementation of a firman from Constantinople. With the appointment of the energetic Marquis de Nointel as French Ambassador, and shortly afterwards the need of the

Turks for the friendship of France, in the last quarter of the century the struggle became much more intense. In the Capitulations for 1688 the Latins were at last successful in getting their full rights restored, and after a physical affray in 1690 actually managed to re-establish themselves. In 1717 there were further troubles when the Latins were given permission to repair the dome of the Holy Sepulchre, and again forty years later when the Greeks destroyed the Latin altars in Jerusalem and at Bethlehem. (F. Rey, *La Protection Diplomatique at Consulaire dans Les Échelles du Levant et la Barbare*, Paris, 1899, pp. 317 ff.) Several travellers, such as Henry Maundrell in 1697 and the traders from Aleppo, comment on the feeling between the Christian sects.

ARCHAEOLOGICAL RECONNAISSANCE AND SOUNDINGS IN JUNDĪ SHĀHPŪR

By ROBERT McC. ADAMS and DONALD P. HANSEN

THE RUINS OF JUNDĪ SHĀHPŪR LIE SOUTH of the village of Shahabad, three kilometers below the last of the low ridges marking the northern limit of the Khuzestan plain. The rectangular outline of the city is immediately apparent on aerial photographs, although within the low wall-like embankment presently marking the outer boundary on three sides, the visitor today encounters only sprawling, indistinct clusters of low mounds. A grid pattern suggesting regularly spaced intersecting streets within the wall also is strikingly apparent on aerial photographs and can be seen in a tentative reconstruction of the plan based largely on those photographs.¹ Not only as a royal city of the Sassanian period but as a city of even wider importance in intellectual history, these promising but preliminary indications of a complex, well preserved urban center clearly underline the need for systematic archaeological study. The reconnaissance and excavations reported here were undertaken by the authors in February and March 1963, on behalf of the Oriental Institute, in order to test the feasibility of a later, more substantial undertaking.

Site Map

A reliable map of the present topography of the site is one of the most urgent requirements for such a study. To facilitate mapping, arrangements were made with representatives of Nederlandsche Heide-maatschappij, a Dutch firm of consultants in agricultural development then active in

Khuzestan, to prepare a closed traverse of fixed survey points. Under their supervision, twenty permanent concrete cairns were installed and plotted at intervals around the outer wall or limits of the site, as well as two cairns on prominent mounds within the city. One additional benchmark was placed on the remains of an ancient "mill" or similar structure, in the bed of a dry wash west of the ruins that is known locally as the Siah Manşūr. The map of the ruins given in *figure 1* was compiled entirely from surface observations fixed by triangulation sightings on these cairns, and represents perhaps the most significant product of our reconnaissance.²

Several general observations about the character and date of the ruins stem from the surface reconnaissance accompanying the soundings and mapping. All are subject to correction in detail if and when a large scale program of excavations is carried out. But these surface observations and collections are at least consistent with the results of our soundings, as limited as the latter admittedly are. Pending fuller study, therefore, they may help to define the history and archaeological potentialities of the site.

A first observation is that evidence of an earlier occupation than the Sassanian period in or in the near vicinity of Jundī

¹ R. McC. Adams, *Agriculture and urban life in early southwestern Iran*, *Science* 136, 1962, pp. 109-122.

² The authors owe thanks to Mr. Shahrokh Moshirpour and Mr. E. J. Keall for valuable assistance during the excavations and preparation of the map.

Shāhpūr is wholly lacking. No sherds were found in soundings or surface collections within the walls that can be assigned an earlier date. The nearest earlier site of any consequence is the pre- and protohistoric mound of Chogha Mish, also under excavation by the Oriental Institute, which lies almost six kilometers southeast. Some remains of later periods form a limited, brief concluding occupation at Chogha Mish as well as on scattered, low and indistinct mounds in its immediate neighborhood. Again, however, all are apparently of Sassanian date. Thus it seems fairly certain that at least the physical remains of the city of Jundī Shāhpūr were newly founded early in the Sassanian period. Of course, the possibility must be reckoned with that much of the population of the new capital—and hence also, much of its urban structure—was physically transferred to it from some other locality.

As might be expected, surface collections from most of the area of the ruins point to a maximum extent of occupation in the Sassanian period. In fact, the almost featureless eastern and western ends of the city contain mainly sparse Sassanian pottery on the surface, while Sassanian, Early Islamic and Sāmarrān pottery occur in greater abundance on the mounds that cluster irregularly toward the center of the great rectangular enclosure. Since virtually the entire surface of the site is disturbed by current cultivation, there are real difficulties in drawing firm conclusions about sequential patterns of ancient occupance. One possibility is that the sparsity of debris in the two ends of the rectangle reflects an absence of substantial settlement there at any period. On this assumption, the rectangular plan and interior grid pattern of

the city is to be seen more as the ambition of its founder than as a functioning reality. Moreover, since the lines articulating the grid pattern are found to consist not of ancient roadways at surface level but of low raised ridges, their significance as evidence for an overall plan for the city in any case is subject to challenge.

It is also possible, however, to frame a contrary hypothesis from the same evidence. Specifically, we could visualize the central part of the city as that which persisted longest after its founding dynasty had disappeared from the scene. In the course of progressive decline over several centuries, there would have been extensive brick-robbing of abandoned outlying areas, together with a concentration of the remaining population around the city's nucleus. Continuing with this assumption, we might also anticipate a deterioration in the size and quality of urban architecture, leading to the gradual replacement of monumental buildings suitable for a Sassanian capital by progressively smaller, more irregular, and more impoverished structures. Only the latter would be expected, after all, in a provincial Islamic town sorely beset by the corruption, violence and intrigue that accompanied the breakdown of central authority after the early 'Abbasid period. Between these two hypotheses, or some combination of them, a conclusive decision ultimately must rest not on surface reconnaissance but on excavations.

Sounding in the City Ruins

In view of stringent limits on time and funds, only four small soundings could be made within the rectangular area of Jundī

Shāhpūr proper during the 1963 campaign. The objective of these soundings was, first, to test the depth of stratified refuse and, second, to probe the extent and character of architectural remains underlying some of the widely scattered mounds within the city area. In the sequel, it must be reported that these tests were both generally consistent and uniformly unpromising. None of them produced positive findings of inherent importance at this stage in our knowledge although, taken together, they shed considerable light on at least the later history of settlement at the site. After briefly describing the four soundings individually, their apparent implications for a general understanding of the site accordingly can be considered jointly.

Tabl Khāneh is one of the highest, most prominent mounds within Jundī Shāhpūr. One and a half days were spent by a crew of twelve men in a sounding on its summit. After clearance of the top 50 cm. of disturbed material, a four-meter wide east-west trench was dug across the summit. In the absence of any observed natural stratigraphy, arbitrary 50 cm. levels were followed until the operation was abandoned at a depth of 2.5 m. Immense quantities of pottery were recovered (well over 100 baskets) as well as broken brick, cobblestones, pebbles and iron nails. While there were many large sherds, however, it proved impossible to find sherds that adjoined across old breaks. Traces of architecture were wholly lacking. Clearly, this was a fill deposit rather than an accumulation over time. Possibly it was formerly enclosed by foundation or structure walls, but if so this structure had been entirely destroyed by the erosion of the steeply sloping flanks of the mound.

The dating of the voluminous ceramic collections proved equally unhelpful. While chronological control of most Islamic wares is notoriously poor, comparison of the successive levels revealed an apparent mixture in all of them rather than an ordered sequence. The predominant component was late Sassanian—Early Islamic, including particularly heavy blue-green all-over glaze, imitation T'ang splash glazes, and cobalt blue-and-white glazed sherds. But some later material also was present, including Sgraffiato ware of the type commonly associated with Sāmarrā, barbotine ware, "turban" handles, imitation celadon and deep violet glaze. Two individual pieces of note were a sherd of red-buff-black glaze, a 10th-century type at Nishapur, and a black-under-blue glazed sherd attributable to the 11th century; both of the latter were not from the surface but from deep in the fill.

Whatever may lie within the core of the mound of Tabl Khāneh, it would appear that its upper portion was in use no later than the fifth century A.H. The prominence of the mound and the absence of architectural remains in the sounding suggests that its final use may have been for some relatively crude structure unrelated to its original purpose, such as a fort or watchtower.

The site for a second sounding was selected at plain level, in the midst of a low group of mounds, 250 m. west-northwest of Tabl Khāneh. It consisted of a 5 × 5 m. pit, and reached a depth of 2.1 m. before encountering dense, undisturbed gravel. Several lengths of plain clay water pipe 16 cm. in diameter were in place as an apparent drain from northwest to southeast across the pit at a level 20 cm. above virgin

gravel, and at the same level in another part of the pit an impromptu water conduit had been constructed of stones and broken brick. Down to the level of these pipes the pottery that was recovered was mainly Sassanian but included also a small number of Early Islamic and Sāmarrān types (a plain yellow glazed plate, a "turban," a white glazed bowl sherd with alternate vertical drips in blue from the interior rim, imitation T'ang ware, etc.). Below that level only Sassanian blue-green glazed ware was observed, although the number of sherds was so small that this may be of little significance.

The third sounding was placed on a large, prominent mound in the northwest part of the site, known as Kashk-e-Bozi, that was suggestively rectangular in plan as seen in aerial photographs. A 6×8.5 m. trench was centrally located on the broad, slightly rounded summit of the mound. Several late graves, entirely without offerings and hence of uncertain date, were cleared in the top 1.1 m. Then the trench was carried to a total depth of 2.3 m. through mixed debris composed of earth, stone, broken brick, gravel, sand, and fragments of mortar and plaster. Two observations converged to indicate that this was not ordinary fallen rubble within a building. First, the deposit was marked by more or less horizontal lenses or strata, distinguished by varying colors of earth and amounts of stone and brick. Second, all of the debris had been broken into relatively small fragments, with no complete bricks found from which measurements could be recorded. This suggested that the mound, at least as sampled by our trench, represented a platform that had been built up through intermittent dumping rather than

the fallen remains of a structure. The accompanying pottery was small in quantity and generally undateable but included several Early Islamic glazed sherds.

A final sounding was undertaken in order to test the continuous low ridge that seemed clearly to form the outer wall of the city along its west, south and east sides. A point was selected at which it appeared particularly well preserved, about 220 m. east of the southwest corner of the city's clearly rectangular outline on air photographs. A trench 10 m. long and 3 m. in width was dug along a northeast-southwest line, reaching a depth of 2.2 m. below the summit of the ridge (and well below surrounding plain level) before being abandoned. The only feature observed in either face of this trench was a short, poorly preserved weathering horizon or floor at a depth of about 1 m. The ridge itself appeared to be composed almost entirely of consolidated gravel, with very few sherds, little mortar, and with the few brick fragments confined to the uppermost part of the section. No trace of special surface treatment was found at any point on either the outer or inner face, and nothing was found to support an initial impression that there might have been a tower or buttress projecting southward from the main line of the wall or ridge at this point. As a city wall, in other words, this was a simple, low, and unsophisticated barrier that would have been much more effective symbolically than militarily.

There is another possible interpretation, although it was neither realized nor tested at the time, that excavations in the city were in progress. Subsequent examination of enlarged aerial photographs discloses traces of an apparent inner wall par-

alleling the main outer ridge for most of its length. This inner wall survives in places as a narrower and lower ridge, while elsewhere it can be detected only as a discoloration on the photographs. Along the east and west ends of the city the discoloration follows a straight course with projecting semicircular buttresses at intervals of about forty meters, yet from the amount of debris this inner wall could not represent in itself a fortification of any significant strength. On the other hand, the parallel walls or ridges might be assumed to have formed the banks of a canal or moat enclosing the city on at least three sides. This possibility is enhanced by the apparent connection of the upper end of the depression between the low ridges existing today with the main supply canal for Jundī Shāhpūr and with the Siah Mansour. Again, however, the implication is not that this would have formed a highly effective military barrier. Instead, it may have served primarily as a symbol of the limits of the royal city as it was originally laid out by Shāhpūr.

While it is obviously hazardous to venture firm or far-reaching conclusions on the basis of very limited soundings like those described above, their apparent consistency with one another and with surface observations made during the course of mapping prompts certain general comments. In spite of the suggestive regularity of some of the mounds and mound-complexes, it is perhaps significant that no traces of intact corners of structures were observed anywhere within the limits of the site and that wall faces were observed only in two places. Taken together with the depth of intentional fill or fallen debris that was encountered both at Kashk-e-Bozi and Tabl Khāneh without any accom-

panying traces of surviving architectural remains, this seems to imply a long period of deterioration of the city during which many of the monumental earlier buildings one would expect to find here were almost obliterated to provide construction materials for progressively more impoverished later dwellings. In spite of the presence of Sassanian pottery as perhaps the dominant surface component over the entire area, accordingly it would appear that only an extensive program of search trenches could delineate major buildings connected with the original Sassanian city plan. In the absence of such trenches, we cannot even be certain that the ambitious outline of the site ever was more than partly occupied with houses and public buildings.

A second negative conclusion is supported by the relatively shallow depth of underlying gravel encountered in one sounding. That this is not an isolated occurrence is clearly indicated by a systematic study of soil profiles conducted by the Khuzestan Development Service on the upper Khuzestan plains. Hence it follows that there is likely to have been extensive re-use of deposits of earth fill and debris, reducing the possibility of finding unmixed trash accumulations for stratigraphic study. If the latter occur at all, they are likely to be in the form of infilled excavations and pits. Again, only a possibly unrewarding program of search trenches seems likely to discover them.

Finally, it is noteworthy that the last period of occupation extensively represented in even the reduced central portion of the city is characterized by ceramics usually identified with the time of Sāmarrā. These ceramic types must have continued in use for some time after the return

of the Caliphate to Baghdad but this is counterbalanced by the fact that at Jundī Shāhpūr, Early Islamic splash glazes everywhere greatly predominate over Sāmarrān Sgraffiato ware. In any case, traces of later 'Abbāsīd occupation are at best extremely limited and might better be described as somewhat doubtful. Hence the survival of the site into the fifth century A.H. as more than a small, impoverished village simply cannot be demonstrated from the available archaeological evidence.

Herein lies a problem that is by no means limited to Jundī Shāhpūr. Save for Yāqūt's notice of its abandonment in his time, the later Islamic geographers continue to attest to its survival and even prosperity as a town. Hamzah of Isfāhān reported that the city was laid out in a checkerboard fashion, with eight streets running in either direction. Something of the kind almost certainly was present in the Sassanian and Early Islamic periods, but is much less likely still to have been true in the mid-fourth century A.H. when he wrote. Mukaddasī, a generation later, does indeed note that in his day the city was in decline after having been seized by the Kurds. But he refers also to the continuing prosperity and productivity of the surrounding countryside, which is said to have produced all of the sugar consumed in Jibāl and Khurāsān provinces, and to the wealth of some of the inhabitants of the city.³ At about the same time the *Hudūd al-'Ālam*⁴ and Ibn Hawqal⁵ also refer to it as a populous and pleasant city, both mentioning that the

tomb of Ya'qūb ibn Layth was situated there. As late as the time of Abū-l-Fidā, in the seventh century A.H., it was described as fertile and well-provisioned,⁶ while to Mustawfī, a generation later still, it was "a medium sized sugar town of the hot region" with abundant sugar cane.⁷

What is one to make of these references? Presumably, they provide a further illustration that some of what passes as classical Islamic geography is an uncritical compilation that fails to distinguish between personal observation on the one hand and plagiarism from a variety of older sources on the other. As sources of contemporary reference, it would appear that greater importance must be attached to more scattered and at first glance less informative accounts. The tax rolls of Qudāmah and Ibn Khordādhbeh, for example, indicate the continuing importance of at least the Jundī Shāhpūr district—if not the town itself—as a source of revenue as late as the mid-third century A.H.⁸ The presence of a flourishing Christian community not more than three quarters of a century earlier is attested by the appointment of a bishop, and later an archbishop, under the

⁵ J. H. Kramers and G. Wiet (tr. and ed.), *Ibn Hawqal, Kitab Surat al-Ard, Configuration de la terre*, Paris, 1964, vol. 2, p. 254.

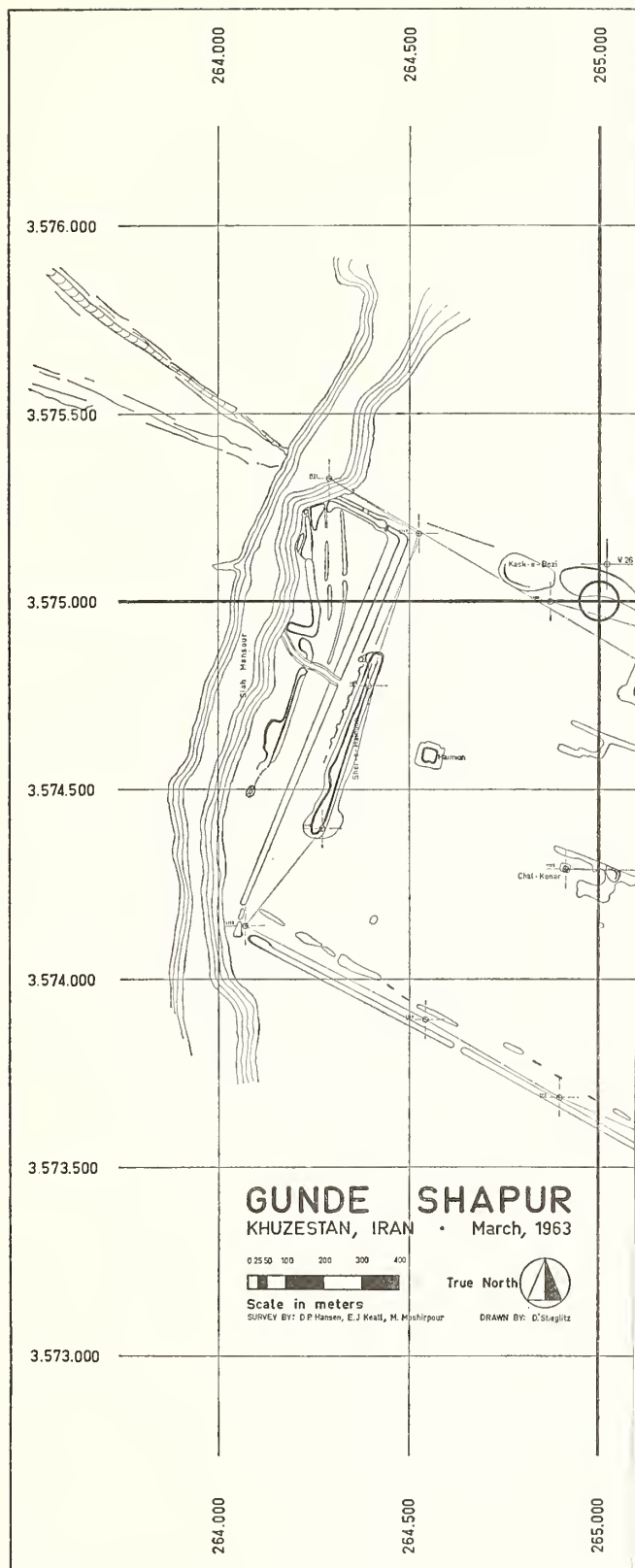
⁶ M. Reinaud and S. Guyard (tr.), *Géographie d'Aboulféda*, Paris, 1883, vol. 2, p. 86.

⁷ G. Le Strange (tr.), *The geographical part of the Nuzhat-al-Qulūb composed by Hamdallah Mustawfī of Qazwīn in 740 (1340)*, London, E. J. W. Gibb Memorial, vol. 23, no. 2 (1919), p. 109.

⁸ Ibn Khordādhbeh, *Kitāb al-Masālik wa'l-Mamālik* and Kodāma ibn Dja'far, *Kitātā al-Kharādj*, M. J. De Geoe (ed.), *Bibliotheca Geographorum Arabicorum* Leiden, vol. 6, 1889, pp. 31, 183.

³ P. Schwartz, *Iran im Mittelalter nach den arabischen Geographen*, Leipzig, 1921, pp. 348–349.

⁴ V. Minorsky (tr. and ed.), *Hudūd al-'Ālam, "the regions of the world,"* London, E. J. W. Gibb Memorial, New Series, vol. 11, 1937, p. 131.



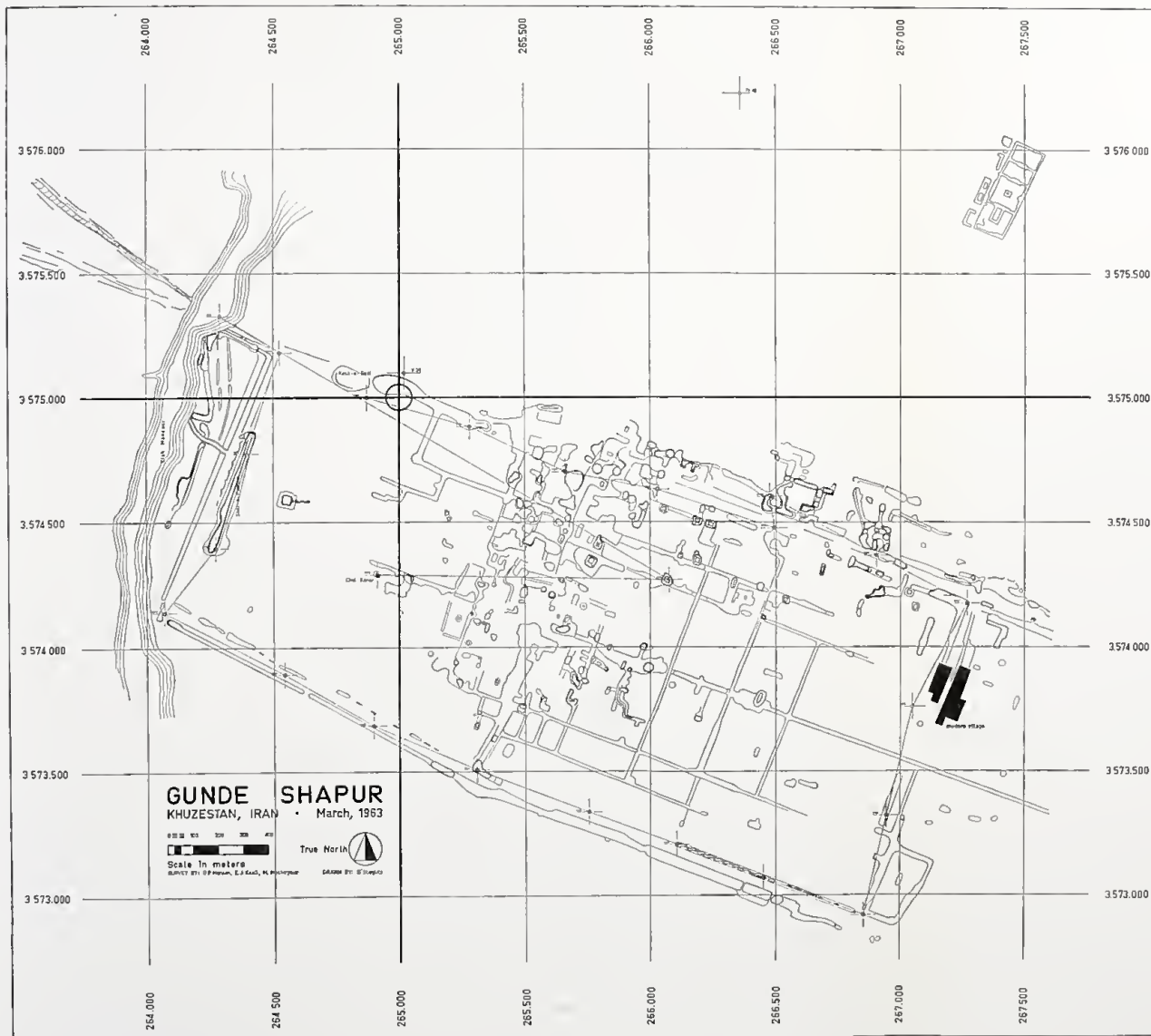


FIGURE 1

first 'Abbāsids.⁹ Later sources of this kind unfortunately are silent.

In light of the admittedly limited archaeological work to date, it would seem fair to conclude that attestations of the town's continuing importance by fourth-century geographers are not entirely beyond doubt in spite of their unanimity. Of course, this is not intended to deny that some of them must provide observations that were both accurate and contemporary. As a center of more than localized economic or administrative importance, however, Jundī Shāhpūr quite possibly never survived the general disturbances in Khuzestan accompanying the Zanj rebellion and pretendership of Ya'qub ibn Layth in the late third century A.H.

Siāh Manṣūr Siphon-Bridge

The gravel bed of the Siāh Manṣūr runs immediately west of Jundī Shāhpūr. Dry for most of the year, it can become a dangerous torrent during the winter rains. The only dependable source of water for the city and its surrounding irrigated fields has always been the Dez River, with off-takes above the bridge and weir at Dezful, fourteen kilometers west-northwest of Jundī Shāhpūr across the Siāh Manṣūr. Both the need for security of communications and for water thus dictated the construction of a small but permanent and fairly elaborate crossing facility.

Two major phases of construction are apparent from the disposition of old canal courses shown in *figure 1*. The earlier canal is parallel with the main urban axis, either having been in use already at the time of the city's founding (hence possibly dictating the orientation of its walls and grid pattern) or else surely having been an in-

tegral part of the initial construction plan. However, little or nothing of the crossing facility connected with this original canal can still be identified, at least above the present land surface. The structure whose surviving remains are shown in *figure 2* instead is contemporary with the later, although probably still Sassanian, main supply canal from Dezful that followed a somewhat more southerly bearing.

Perhaps the easiest crossing mechanism would have been a bridge and weir like those on a much larger scale at Pa-i-pol, Dezful and Shustar that were also constructed during the Sassanian period.¹⁰ The equivalent of the discharge of the canal from Dezful into the pool above the weir then could have been withdrawn on the opposite bank of the Siāh Manṣūr. However, one defect in this solution may have been that it risked serious interference with the city's potable water supply during periods when the dry wash was in flood. Perhaps even more serious, the heavy movement of stone and gravel accompanying the Siāh Manṣūr floods would have required repeated, arduous cleaning operations if the pool above such a weir was to be kept operative. In these circumstances, the decision to rely instead on an inverse siphon beneath the bed of the stream is easily understandable.

Our brief investigation of this facility was limited to plane-tabling, levelling, and exploratory soundings alongside several of the bridge piers and in the tunnel entrance. This limitation, combined with losses accompanying erosion of the stream

⁹ Schwartz, *op. cit.*, p. 348.

¹⁰ G. Van Roggen, *Notice sur les anciens travaux hydrauliques en Susiane*, Mémoires de la Délégation en Perse, Deuxième Série, Paris, vol. 7, 1905.

channel, leaves a number of unanswered questions or ambiguous points in the interpretation of the installation. But the main features of its construction and operation seem to have been as follows.

The outlet of the main Dezful canal lay just above the tunnel on the west bank, as shown. At this point the water it carried entered a steeply sloping headbox, with sides and floor of river boulders set in mortar. At the entrance to the tunnel, 7.5 m. southeast, the level of the bed had dropped 2.8 m. and is 30 cm. below present ground-water level. From the height of the top of the tunnel vault at the bridge pier furthest to the southeast, it would appear that the bed level may have dropped a further half meter by that point. On the other hand, the floor of the tunnel as measured through the access opening in the "mill" is slightly more than 3 m. higher, with a further slope of 10 cm. to the bed as measured at the single pier near the east bank. In short, after dropping beneath the bed of the main channel the tunnel returned to a level only 20 cm. lower than the outlet of the canal. Herein lies the appropriateness of describing the installation as an inverse siphon.

However, further consideration of the nature of the tunnel somewhat modifies this description. At its entrance, the vault of the tunnel is 3.3 m. in both height and width, with the spring of the arch at bed level. Even though the height of the vault at the deepest point of the tunnel is not known, this indicates that some flow could occur after the depressed part of the tunnel had been nearly filled even in the absence of any siphon action. The operation of the system as a siphon would occur only when the intake was increased to the point where the level of the water flowing into the tun-

nel mouth was higher than the keystone of the vault at the lowest point beneath the bed of the stream. Whether this happened very often, if indeed at all, is somewhat in doubt. The interior of the tunnel entrance had been plastered to within 35 cm. of the keystone of the arch, suggesting that water levels seldom reached higher than this. Similarly, plaster on the sides of the open upper end of the headbox extended slightly less than 1 m. above the bed level at the same point, indicating that the normal depth of water in the canal did not exceed 1 m. and often may have been less. By any reckoning then, the potential capacity of the tunnel was far in excess of anticipated flow. Presumably this was done to facilitate cleaning, and it cannot be assumed that there was often occasion for a full head of water to be forced through the tunnel by siphon action.

This excess capacity is reflected also in the reduced size of the tunnel southeast of the "mill." Both at the "mill" and at the single pier near the eastern bank it had declined to 1.8 m. in height and between 2.2 and 2.3 m. in width. Moreover, if we assume that normal water level at the tunnel entrance did not exceed the height of the plastered surface there, then the normal depth of water could not have been more than 35 to 40 cm., even with the considerable reduction of width. Of course, it is possible that some water also was drawn off to the south by additional tunnels along the lines of what appear today as old canal beds. Again, the size of even this reduced portion of the tunnel to the southeast is clearly intended to facilitate cleaning rather than to carry the anticipated flow. The wide opening into the top of the tunnel at the southeast end of the "mill," and again

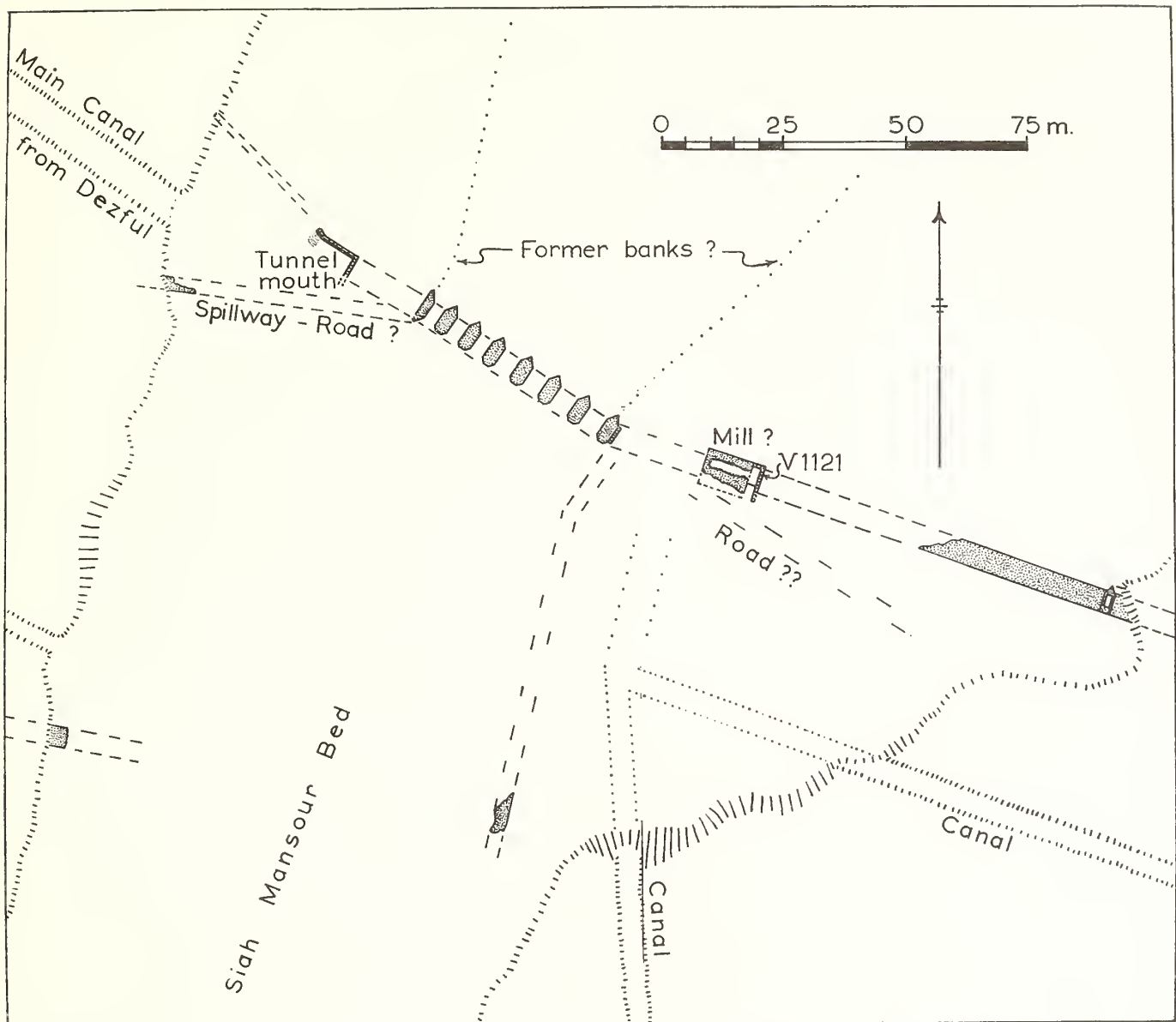


FIGURE 2

through the center of the pier near the present east bank of the Siāh Manšūr, undoubtedly served in connection with these cleaning operations.

To all appearances, the tunnel last seen entering the east bank of the Siāh Manšūr continues southeastward indefinitely into, and perhaps through, the city itself. It is

well below ground level in the whole area, and even more so when one considers that level of flow may not have exceeded 35 to 40 cm. above the bed of the tunnel. Thus it implies an extensive underground water supply system, perhaps partly to meet domestic needs and partly for the irrigation (based on lifting devices) of intensively

cultivated, market oriented crops like rice or sugar. Quite possibly the main underground conduits are represented by the low raised ridges forming a rectangular grid which we originally identified in the aerial photographs as ancient roads, for a collapsed portion of one such ridge suggested an underlying tunnel. In that case, at least some of the tracts of land they enclose may never have been intended for settlement at all, but rather for intensive irrigation. However, only a much more systematic program of soundings than we have completed would permit an adequate understanding of either the extent or purpose of the system of outlets supplied by this tunnel.

The eight piers of the bridge are superimposed directly over the vault of the tunnel, although the footings of each of them also extend 1 m. downstream and slightly more than 2 m. upstream of the tunnel masonry. As with the latter, the lower masonry of the piers consists not of locally available stone but of roughly squared, horizontally laid blocks of sandstone. On the other hand, the upper portions of all the piers were formed of unshaped river pebbles roughly laid in mortar. The solidity of their original construction is indicated by the fact that several of the piers are still virtually intact, including their smoothed sides and top surfaces, and that all retain essentially their original outlines even though they project up to a half meter above the present, actively eroding bed of the Siāh Manşūr.

As a bridge, rather than merely a tunnel, this structure invites several further questions. Although the tops of the piers were entirely devoid of mountings or attachments pointing to the nature of the

bridging material, the maximum span between the piers of slightly more than 4 m. is entirely consistent with the assumption that it was wood. On the other hand, more than 15 m. separate the piers from the masonry of either the headbox or the "mill." This, together with slight irregularities in the construction of the piers on either end of the group, strongly indicates that the Siāh Manşūr banks at the time were in the position of the end piers rather than their present position, representing a stream width of less than 50 m. as compared with 190 m. today. Three other bits of evidence point in the same direction: the top of the tunnel vault southeast of the "mill" is less than 30 cm. in thickness, only about half that in the deeper part of the tunnel. This relative fragility is all the more noticeable in that the top of the tunnel vault is perhaps 40 cm. higher here than under the bridge, and hence more exposed to the stream's scouring action. In addition, the erosion of at least the eastern bank in relatively recent times obviously has been relatively rapid, cutting away 2.4 m. of gravel on the downstream side of the tunnel although it still has not seriously undermined or eroded the exposed top surface of the tunnel masonry. Further, an extension of the lines of high spoil-banks south of the "mill" implies that these ancient canals originally had their headworks west even of the latter and hence far inside the banks of the present channel. In short, a persuasive argument can be made that a quite different erosional regime prevailed on the Siāh Manşūr at the time this facility was in use than occurs at present. Quite possibly this is to be explained by the subsequent deforestation of the river's upper catchment area.

There are several badly preserved remnants of masonry that must be related to the bridge and siphon in various ways. Perhaps the least enigmatic is a low wall more than 2.5 m. thick that enters the present west bank of the channel directly west of the westernmost pier of the bridge. Identical in construction to the tunnel vault, one purpose of its great thickness may have been to support road traffic on the approach to the bridge. At the same time, it would have prevented the canal from washing out downstream of the entrance of the tunnel even if the entire flow of the canal was diverted over it during blockage of the tunnel for cleaning.

Much less clear is the function of the structure that has been described heretofore as a "mill." Its vaulted roof is thinner than that of the remainder of the tunnel, and has largely fallen in. The size and rectangular shape of this masonry platform suggest that it may have supported some kind of superstructure, although to trace of a superstructure survives. It is difficult to visualize a traditional water-powered mill at a location well inland from the bank, if our reconstruction of the latter is correct; but no other, more reasonable possibility suggests itself.

Even less certain are two smaller fragments of masonry that seemingly are still in place downstream of the bridge. One is the end of an old dam or abutment penetrating the present west bank 110 m. southwest of the bridge piers. It is very badly preserved and may include not only squared boulder masonry but also large baked bricks of a size (34 × 34 cm.) elsewhere associated with the Sassanian period. The other fragment occurs in the bed of the present channel east of this abut-

ment and suggests the possibility of a retaining wall along the line of the original bank.

Qal'ah-i Khān

As its name implies, this is a monumental building whose isolated position and comparatively rude construction seem more appropriate for the residence of a powerful nomadic leader than for the seat of government of a sedentary, urban society. Located some 1200 m. north of the ruins of Jundī Shāhpūr, its better preservation, more abrupt contours, and slightly different orientation all attest to a considerably more recent date of construction. Nevertheless, local tradition apparently no longer records the time of its occupation and the name or names of its builders and occupants.

A more recent example of the same kind of structure, now also in ruins, occurs eighteen kilometers east of Jundī Shāhpūr at Āb-i-Bīd. The latter is much smaller in extent, and its position—in a shallow folded valley where the Khuzestan plain breaks against steeply rising hills—also argues for the more circumscribed authority of the chief who resided there. Ninety years ago the latter was the winter camp of the Il-Khān of the Bakhtiari as well as a caravanserai maintained under his protection, on the uppermost Dezful-Shustar road.¹¹ There seems little doubt that approximately the same purposes were served at an earlier date by the sprawling complex of ruins near Jundī Shāhpūr.

In its outlines (see *fig. 3*), this Qal'ah consists of a series of great, enclosed court-

¹¹ A. Houtum-Schlindler, *Reisen im südwestlichen Persien*, Zeitschrift der Gesellschaft für Erdkunde zu Berlin, 1879, vol. 14, p. 99.

yards, separated and flanked by narrow, discontinuous rows of rooms. The two courts on the northeast end of the complex are devoid of internal features, and may have served primarily as protective enclosures for baggage animals or herds. The court on the southwest end contains a number of low topographic irregularities whose outlines and probable function cannot be determined by surface reconnaissance. At any rate, the relative scarcity on the surface of traces of baked brick and plaster suggests a mundane, utilitarian character for these three units. The main courtyard, on the other hand, clearly provided the focus for a substantial private residence. Soundings were conducted here with a crew of about 20 men over a period of one week (February 12–19, 1963).

Our main sounding disclosed two of a series of elevated rooms along the southwest side of the courtyard, connected through a corridor at ground level which provided access to the formal garden in the court itself (see *fig. 4*). Basic construction was of mud brick or *libn*, with a baked brick (21 or 22 cm. square and 5 cm. thick) facing bonded into the *libn* along many walls. The underlying platform was faced with two courses of roughly squared fieldstones, surmounted by five courses of baked brick, while baked brick also was employed in the four excavated or partly excavated stairways.

These apartments were marked by a very extensive use of plaster. Walls, floors, stairways and niches were covered to a depth of as much as 2 to 3 cm., with a second coating, generally thinner and more irregular, also surviving in places. Only in the first plaster coat were vertical lines incised alongside the niches in the room to

the west of the corridor, and then painted red. In the other room, the outline of the fireplace was set at the time of the first plaster coat with carefully finished, attractive vertical fluting; in the subsequent coat this was thickly and somewhat crudely smoothed over. Plaster never was applied to the walls or floors of either the corridor or the smaller rooms to the south flanking the lesser courtyard.

Two major construction phases can be distinguished. In the first, essential outlines were completed as shown, with the plastering of floors and walls apparently having been carried out as a single operation. According to this initial plan, four doorways opened southward from the rooms both to the west and east of the corridor. Circulation in the room to the west also was unimpeded by two supporting columns and a thin connecting wall that were added later. The length of the initial phase of occupation is not apparent, although it may be noted that in places the floor plaster was much worn and that the first plaster coating had entirely burned away from the back of the fireplace before it was replaced.

Prior to the second phase of occupation all four of the doorways mentioned above were blocked with *libn* and converted into niches of varying heights from the floor. The columns and connecting wall that were erected across the west room provided a further screen of privacy for the southern part of this room. On the other hand, the entire north end of this room continued to be left open to the central courtyard, leading directly down a broad flight of stairs to a garden centering on a pool. Another innovation was the construction of heavy

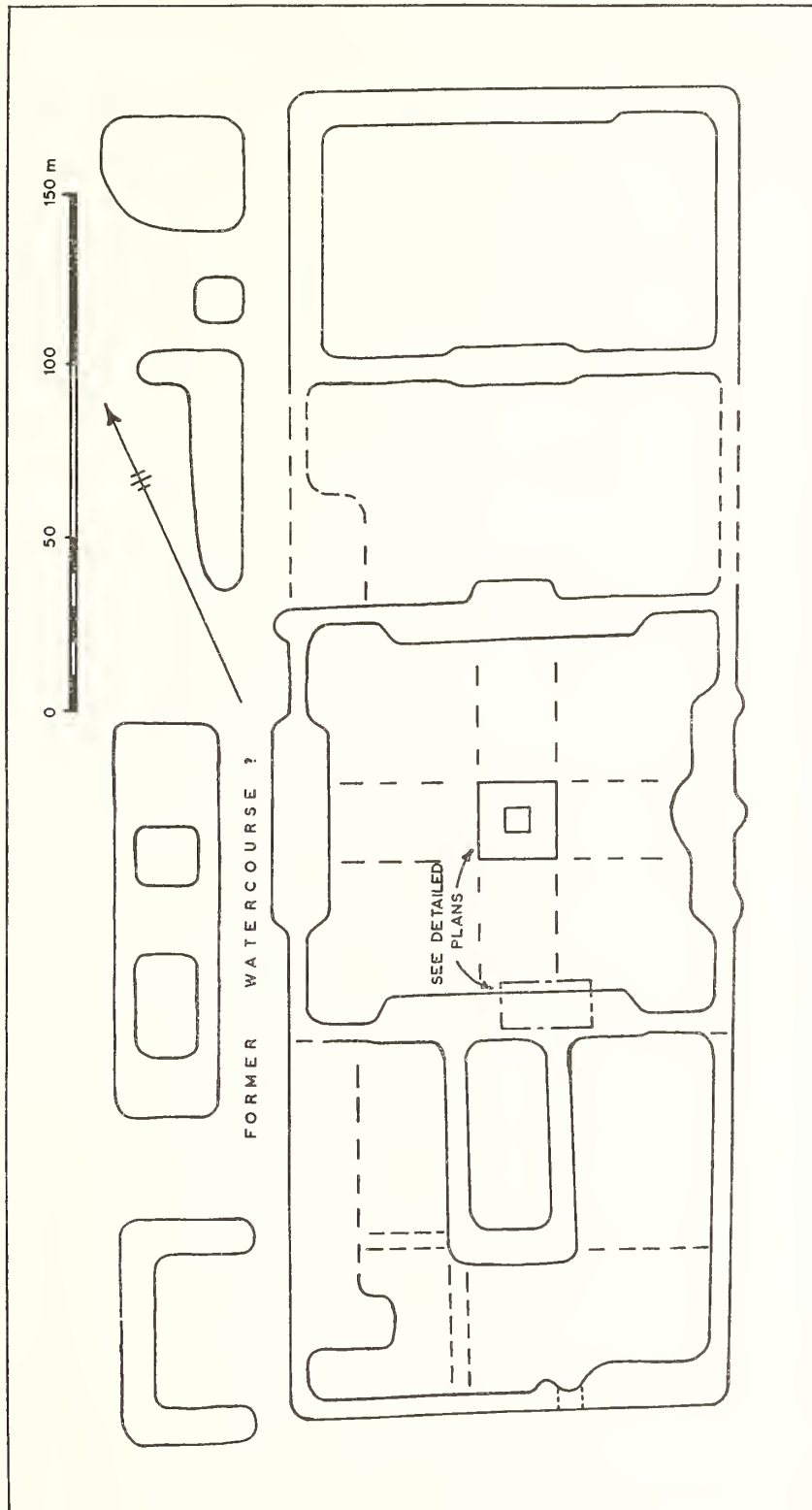


FIGURE 3

plaster shelves in six niches which previously had extended almost to floor level.

While there can be no doubt that the north end of the west room was simply left open, it is less clear what the arrangements were along the north side of the east room. The presence of a fireplace suggests some concern here for warmth, but no trace of hinge supports could be seen in the plastered surfaces adjoining the four openings where french doors might have been hung. Slight insets in some of the piers correspond with the outermost edges of others, perhaps implying that these openings were closed off with curtains. On the other hand, definite sills and jambs indicate that doors were in use on both entryways leading down into the corridor and on the passage leading westward beyond the limit of our excavations. An ornamental iron nail found in the east entryway may have been used in that door.

Prominent in the fallen debris in both rooms were thick fragments of plaster latticework windows. None was sufficiently well preserved to permit the reconstruction of their overall shape or design, but study of individual pieces found in the same area suggested that the longest dimension of the windows normally was 1 m. or more. Edge fragments sometimes had deep flanges for bonding into the walls. Those which were curved may have fitted under brick arches, but others were straight and with rectangular corners. Small panes of violet-colored glass had been inserted in the lattice openings of a minority of the fragments, but it is not clear whether entire windows or only portions of windows were treated in this fashion. From the position of the main clusters of fragments it does not appear that lattices were used in connection with

any of the room openings northward directly into the court; on the other hand, they definitely were in position in the upper part of the niches between the rooms and the corridor leading into the court.

There are a number of problems connected with the roofing of the complex. The only section of arched roof whose fallen remains were unambiguously recognizable extended between two buttresses at the southern end of the corridor. To be sure, there was a thick accumulation of fallen debris north of this point, while the deep piers along both sides of the corridor certainly could have carried arches for much of the corridor's length. However, since the span in the corridor is only slightly more than 2 m., it could have been easily roofed with poles. Moreover, both the thick accumulation of debris and the massiveness of the adjoining piers can be alternatively explained by assuming a partial second story, reached by means of the stairways south of the archway at the end of the corridor.

The room to the west of the corridor is more than 5.5 m. wide. This must be near the limits of what can be spanned with locally available poplar poles, although the interior plaster gave no indication of having been left exposed to the elements. The construction of the two interior columns in the second phase eliminated the problem of support for the southern part of the room but fails to indicate how, or even whether, the same problem was solved for the remainder. The room east of the corridor is almost as wide, about 4.5 m., and yet apparently never was fitted with posts or supporting columns. Floor debris was considerably thicker here and included clumps of libn, bricks and mortar that had

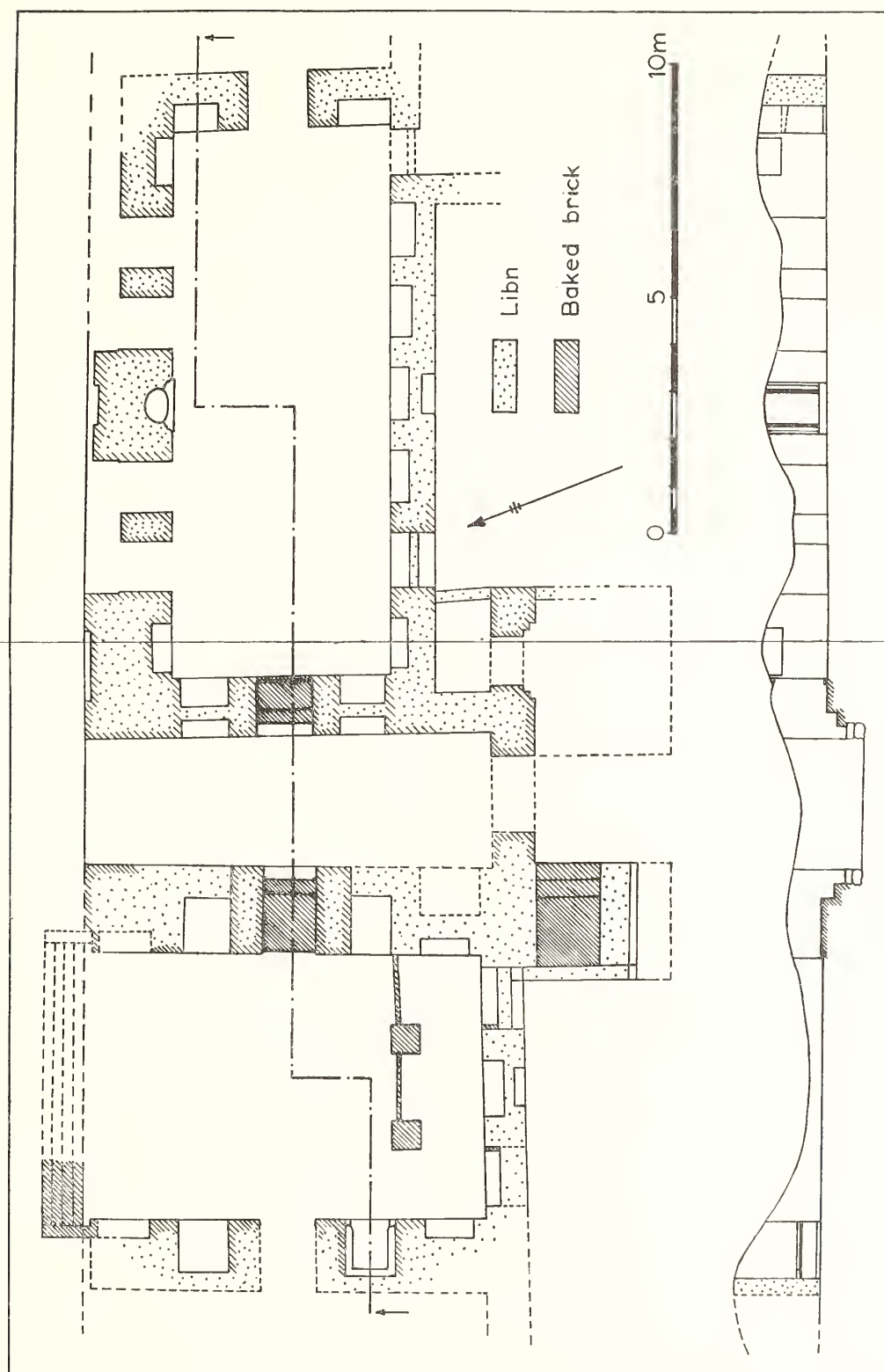


FIGURE 4

been laid up flat, presumably as a capping to a pole ceiling.

The pool (*fig. 5*) is in the center of the court to the northeast of these rooms. The floor of the pool is composed of broken and irregular baked bricks, laid flat and thickly sealed with plaster; and plaster also was used on the brick enclosing walls of the pool and the outer walls of the island in the center. Low pedestals on either side conceivably may have served as emplacements for vases or statues.

What can be said of the dating of this impressive complex? Certain general considerations provide a *terminus a quo*. As indicated above, it is clearly later than the floruit of Jundī Shāhpūr as a city. Quantities of imitation T'ang splash-glazed pottery and other Early Islamic wares were found in the fallen debris filling the excavated rooms and corridor. In several instances, however, these sherds were observed to occur in the mud brick of which most of the walls were composed. Moreover, the great majority of them were observed high in the fill while none were found at floor level. Hence the building certainly was constructed after the Early Islamic period. The same conclusion is supported by the size of the baked bricks which, on the example of the Diyala plains east of Baghdad,¹² cannot be earlier than the late 'Abbāsīd period.

It is much more difficult to suggest a *terminus ad quem* in view of the very limited number of dateable, later small finds associated with the structure. Three coins were found in the room to the west of the

corridor, but since they occurred in the lower 20 cm. of debris rather than at floor level they cannot be regarded as necessarily contemporary with its period of use. Two of the coins were identified by Mme. Bayani in the Musée Iran Bostan as Qajar, and one as Timurid. The later pottery, while occurring only in small quantities, fell into two categories. First, there were several sherds of black-under-white and black-under-blue glazed ware, assigned to the 6th or 7th centuries A.H. by Professor Ezat Negahban. A small, squat jar with blue streaked glaze, found intact on the floor along the south wall of the room east of the corridor, was identified by the same authority as Timurid. Secondly, there was a somewhat larger number (15 to 20) of Safavid sherds, including pea-green imitation celadon and floral-glazed wares.

It is difficult to summarize this very limited chronological evidence in a completely convincing fashion. We tend to assign greatest importance to the intact jar, on the grounds that it is unlikely to have survived for long after its period of manufacture nor, on the other hand, to have found its way to the floor of a long-abandoned building. Perhaps then we should see the first phase of the building's construction as having been initiated in Ilkhanid times and continuing into the Timurid period. If this accounts for the coin and one group of the pottery, it is then tempting to assign a Safavid date to the second phase of construction in order to take account of the pottery of that period. The difficulty with this conclusion is, of course, that it fails to explain the preservation intact of the Timurid jar for several additional centuries prior to the abandonment of the building. Moreover, it presupposes

¹² Robert McC. Adams, *Land behind Baghdad: a history of settlement on the Diyala plains*, Chicago, 1965, p. 183.

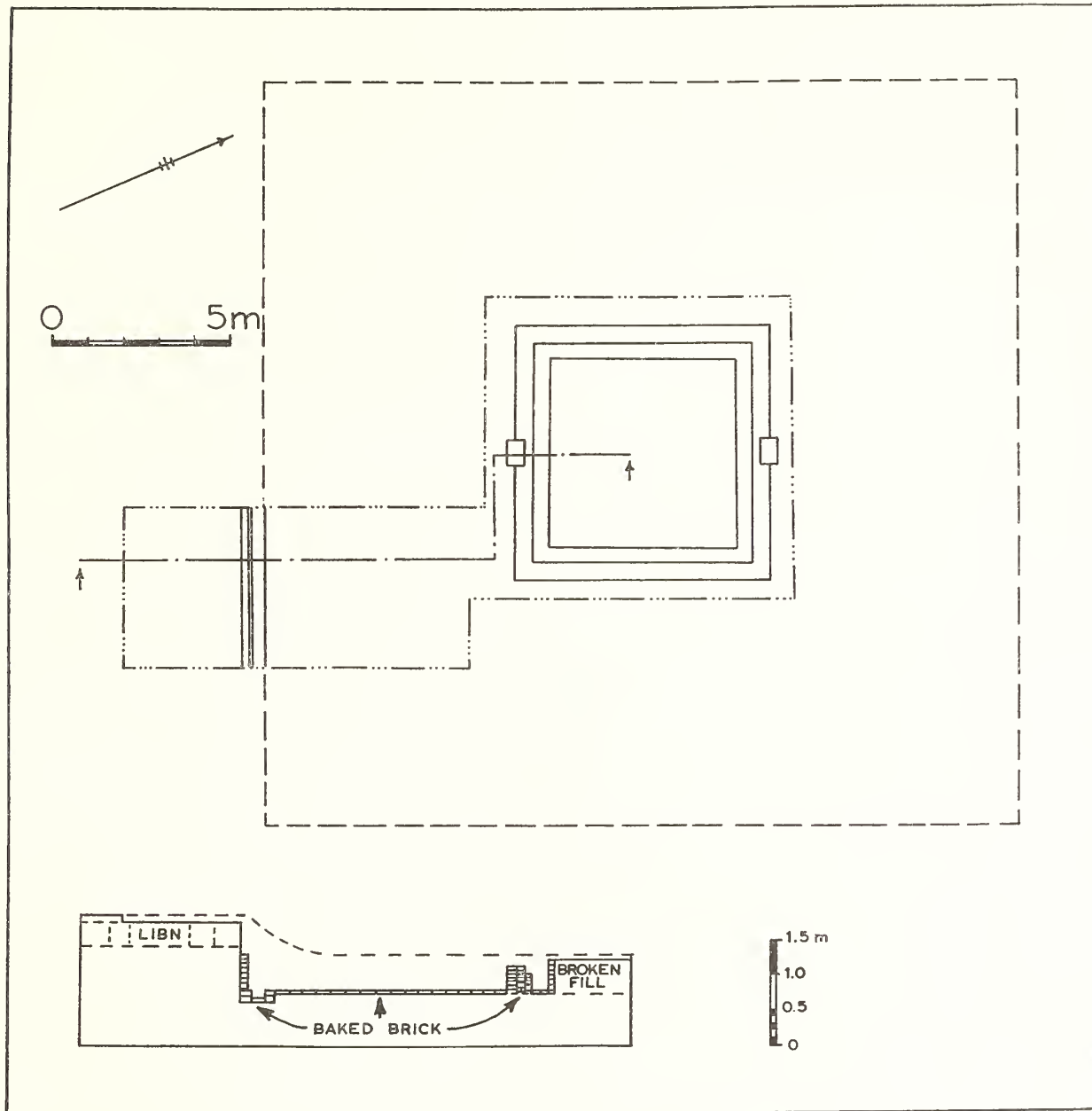


FIGURE 5

what seems an excessively long period of occupation for the complex in view of the evidence that only a single reconstruction and replastering was ever carried out. Perhaps the most reasonable overall conclusion then is that the building was built in

Ilkhanid or Timurid times, and that the date of its abandonment is uncertain but hardly later than the Safavid period.

By this reckoning, the Qal'ah entirely postdates the occupation of Jundī Shāhpūr as a city, since already in Yāgūt's time the

latter had become a heap of ruins whose importance was preserved only in traditions.¹³ On the other hand, the surrounding district was at least relatively favored in a period of deep economic dislocation and savage destruction. Khuzestan had bowed to the initial Mongol onslaught with little opposition,¹⁴ sparing its remaining towns from the carnage exacted elsewhere in punishment. Even after the conquests of Ti-

mur, Shustar and Dezful continued as populous, settled places.¹⁵ Merchants and others passing in caravans along the highroad between them probably sought out the protection of this unnamed Qal'ah as a caravanserai. And on winter journeys they would have found the Khān himself in residence, just as continued to be the case until the threshold of our own era at Ab-i-Bīd half a millennium later.

¹³ F. Wüstenfeld, *Jācūt's Reisen, aus seinem geographischen Wörterbuche beschrieben*, *Zeitschrift der Deutschen Morgenländischen Gesellschaft*, vol. 18, 1864, p. 426.

¹⁴ B. Spuler, *Die Mongolen in Iran*, Berlin, 1955, p. 54.

¹⁵ W. Caskel, *Ein Mahdī des 15. Jahrhunderts*, *Islamica*, vol. 4, 1931, p. 54.

APPENDIX
JUNDĪ SHĀHPŪR: A PRELIMINARY HISTORICAL SKETCH
BY NABIA ABBOTT

There are several distinguishable periods in the history of Jundī Shāhpūr as a town and city and as a center of cosmopolitan culture. Tradition traces the site of the town to the time of David and beyond that even to pre-history. Its earliest Pahlavi or Old Persian name is given as Genta Shapirta which is rendered as "The Beautiful Garden" or the "Abode of Happiness," both of which reflect the good climate and the fertility of the site.

The growth of the town into a flourishing cosmopolitan city dates from the reign of the Sassānid Shāhpūr I (A.D. 241–271), who is credited with building up and extending the old town to accommodate the large number of Roman and other prisoners of war whom he settled there after his defeat of the Roman Emperor Valerian. These captives represented many peoples and countries. Shāhpūr encouraged and used the skills of the professionals, especially the engineers, among them. He settled men of science and learning in the growing city which acquired and retained the name of Jundī Shāhpūr—"Shāhpūr's military camp."¹ Though it was one of several military camps in Persia, Shāhpūr favored it as his name place, set up a royal residence in the city and made it the capital of the province of Khuzistān. Shāhpūr himself followed his victories against Rome by marriage to the daughter of the Emperor Aurilian. Among those who accompanied the bride to Jundī Shāhpūr were two Greek physicians who then publicly taught the Hippocratic system of medicine. Shāhpūr

encouraged these activities as he did those of the physicians and scholars who represented the Persian and Indian system. The growing and prosperous population became increasingly cosmopolitan and polyglot. Pahlavi remained the language of the court while Greek and Aramaic (Syriac) became those of culture. Cultural leadership passed to Syriac speaking scholars who drew on these other languages for their knowledge of the Greek and Persian sciences as they searched for, studied, and translated ancient Greek and *Avestan* texts, both of which yielded a rich medical harvest in the process.

¹ More recently, Professor Richard N. Frye (personal communication to R. McC. Adams) has suggested a different etymology:

"The city was founded, I believe, after 256 A.D. when Shapur I settled prisoners from Antioch and elsewhere. The date of the first capture of Antioch was 256 and not 253 since we can date this from the patriarch or bishop of Antioch who was Demetrianus. He ends his office in Antioch in 256 and appears as first bishop of Gundeshapur later. The original name of the city was Middle Persian *why'ndyurk šhpurhry*, as we know from the Ka'bah inscription of Shapur and from seal impressions. The Greek was Γουε-αντιοχ-σαβωρη, and Parthian *why'ntyurk šhyphr* meaning 'better than Antioch (has) Shapur (made this).' It was known by this name until about the end of the fifth century, when we find in Syriac *Gndyšburr* and Greek βενδοσαβείρων in the acts of the Persian Martyrs. In Syriac it was usually called Beth Lapat. The change to Gundeshapur, Volksetymology for 'the army (place) of Shapur,' is quite natural."

Shāhpūr II (306–380) further enlarged the city of Jundī Shāhpūr and it is he who is credited with the foundation of the Academy or University with its faculties of astronomy with an observatory, theology, and medicine with a hospital attached. The religious freedom of his reign lured representatives of all faiths and the free intercourse of peoples and scholars evolved an eclectic system of medicine that came into practice alongside of the older so-called national systems, Persian, Indian and Greek.

This situation seems to have prevailed until the expulsion of the Nestorians (A.D. 489) from the Roman-held Edessa and their flight to Persia where they were well received, particularly at Jundī Shāhpūr. Thereafter it was mostly through these Nestorian Christians that Greek science found its way, through the medium of Syriac, to the different provinces of the Persian and the Islamic empires.

The expulsion of the Seven Sages of Athens (A.D. 529), who were later received by Chosroes Anūshirwān I (A.D. 531–579), seems to have increased that monarch's determination to become an aggressive patron of the arts and sciences. He paid special attention to the Academy at Jundī Shāhpūr. Here, once more a search for ancient manuscripts was set afoot and translations from the Greek and Sanskrit were made into Pahlavi and Syriac. The literary momentum carried into the reign of Chosroes Anūshirwān II (A.D. 590–628). Syncretism prevailed at first at the medical academy of Jundī Shāhpūr but soon yielded progressively to the Greek medical tradition. This latter was flourishing at the same time at the medical centers in Rome, Alexandria, Constantinople, Antioch and Amida.

Persian medical practices and especially the medical academy of Jundī Shāhpūr (the theological faculty had gravitated to the Nestorian center at Nisibin) enjoyed some reputation among the Arabs on the eve of Islam even though only one Arab physician is definitely known to have studied at that academy. This was Ḥārith ibn Kaldah (d. A.D. 635) whose medical skill was recommended by Muḥammad himself to several of his companions.

The Arabic sources are mostly silent on the academy of Jundī Shāhpūr during the Umayyad period when Syria and Egypt seem to have provided most of the court physicians.

When the 'Abbāsids moved the capital from Damascus to Baghdad, it was not long before the Persians at the new court capitalized on the fame of neighboring Jundī Shāhpūr and introduced some of its physicians to the Caliph Maṣṣūr (A.D. 754–775) and his successors. The fame of the Bakht Yishu' family which produced seven generations of physicians and scholars—the last of whom died in A.D. 1058—is well known. There were several more medical families of three and four generations who, though coming from different provinces of the Empire, received or supplemented their medical education at Jundī Shāhpūr. In the meantime, competitive medical centers flourished at Alexandria, Damascus, Harrāh, Baghdad and Rayy among others. Yet most of these centers were influenced by the tradition of Jundī Shāhpūr, especially in the organization and administration of hospitals.

From the 10th century onward Jundī Shāhpūr begins to fade out as a leading medical center. Yet references to the city, to its sugar cane plantations, and to its

commercial prosperity, continue to be met with in the later Arabic sources. But some of these, as with the 13th century Yāqūt, seem concerned more with its ruins though

parts of the town were still populous in the next century. The ruins of Jundī Shāhpūr are identified with those of the present site of Shāhābād.

THE TECHNICAL EXAMINATION OF TWO SASANIAN SILVER PLATES

By W. T. CHASE

INTRODUCTION

THE INTEREST IN SASANIAN SILVER AND ALL forms of Sasanian art has been growing for a long time. Oleg Grabar has summarized this growth of interest in "An introduction to the art of Sasanian silver."¹ Since the exhibition for which this introduction was written occurred, two meetings have taken place to discuss the technical examination of this group of materials. The first was an informal, small gathering at the University of Michigan, just after the exhibition was over, at which a number of the pieces were superficially examined. Later, in February, 1968, a larger conference was held at the Freer Gallery of Art, for the purpose of defining methods of technical examination for Sasanian silver and drawing up a detailed examination checklist to serve as a guide for future investigators. The amassing of the technical information on this checklist can be extremely valuable. In addition to enabling us to find out about Sasanian technology, it may allow us to differentiate genuine Sasanian pieces, later copies and modern forgeries. In any case, technical information must be collected and published in detail so that other investigators can make use of it. This article is intended to be the first step in that publication. These reports, which were initially presented before the above-men-

tioned conference, are also intended to serve as examples of the use of the examination checklist. It is hard to be definitive about even these two plates, but this must serve as a beginning.

Many people have helped in the preparation of these reports. First I would like to thank Dr. John A. Pope, Director of the Freer Gallery of Art, who enabled this study to take place and who was very liberal in allowing us to sample and examine the plates. Dr. Harold P. Stern, Assistant Director of the Freer, was most helpful in setting up the conference, as was Mrs. Willa R. Moore, Administrative Officer. Rutherford J. Gettens, Head Curator Emeritus of the Freer Gallery Laboratory, was a constant encouragement in this study, and our two laboratory assistants, Mrs. I. V. Bene and Robert Schafer, were very helpful. The rest of the Freer staff, especially Raymond Schwartz, Photographer, and Martin Amt, Museum Specialist, were indispensable to me in preparing this paper.

Outside the Freer, the first credit must go to Dr. Oleg Grabar, for he was the real impetus behind this paper and the Sasanian Silver Conference at which it was presented. Dr. Richard Ettinghausen's notes on both of these plates were a great assistance. I thank the staff of the Spectrographic Laboratory of the Geological Survey, especially Dr. Waring, Dr. Helz, Miss Worthing and Mr. Harris for the analyses published herein, and for the speed with

¹ *Sasanian Silver*, University of Michigan, Ann Arbor, 1967.

which these analyses were done. The members of the Conservation-Analytical Laboratory, U. S. National Museum, were also very helpful, and I am especially indebted to Robert Organ and Maurice Salmon for their kind criticisms. The radiographs reproduced here were made at the Naval Ordnance Laboratory, White Oak, Maryland, and the credit for their excellence goes especially to Donald Case and Daniel Polansky. Finally I am most grateful to all the people who attended the Sasanian Silver Conference for the stimulation of their comments and presence. I hope that the other two formal papers presented there will be published soon. Of course, the viewpoints and ideas expressed in this article are my own responsibility.

Both pieces examined in this article will be presented just as a filled-out checklist, with minimal reference to the literature. For those who are interested in bibliography, I suggest that they consult Grabar's article mentioned above, and Dorothy Shepherd's articles, "Two Silver Rhyta" (*Bulletin of the Cleveland Museum of Art*, LIII, 8, October 1966), "Sasanian Art in Cleveland" (*Bulletin of the Cleveland Museum of Art*, LI, 4, April 1964), Prudence Harper's "The Heavenly Twins" (*The Metropolitan Museum of Art Bulletin*, XXIII, 5, January 1965), and Kate Leferts' "Technical Notes" on the Metropolitan Museum's silver bust of a king (*The Metropolitan Museum of Art Bulletin*, XXV, 3, November 1966). I will adopt the checklist format to save space, to serve as an example for future investigators, and to present the information with greater clarity. Also, I will not discuss art historical matters except as they relate to technical matters.

CHECKLIST FOR THE TECHNICAL EXAMINATION OF SASANIAN SILVER

Date
Examiner
Place Examined
Object
 General description.
Owner
Previous History and Place of Origin (if known)
Sketch and/or Photograph
Measurements (in centimeters)
 Height.
 Width.
 Length.
 Thickness at rim.
 Other thicknesses.
 Cross section or measured profile.
Weight
Specific Gravity (at discretion of investigator)
Hallmarks, Inscriptions, etc.
Accessories (stands, supports, etc.)
Composition
 Apparent composition.
 Chemical Analyses.
 Major elements.
 Minor and trace elements.
 (N.B. Include sample size, where and how taken, analyst, method of analysis, and accuracy claimed.)
Metallography
Vickers Hardness
Brittleness
Radiography
 Orientation of piece with respect to film.
 Exposure data.
 Lead screens used?
 Observations.
 (N.B. A silver X-ray density wedge should be included if possible.)

| | |
|--|---|
| Fabrication Tooling and Construction | Construction technique of plate: cast, raised, sunk, etc. |
| Number of members. | Design repoussé, chased, cast, etc. |
| Hammer marks. | Defects |
| Are raising courses seen? | Breaks. |
| Center marks. | Losses. |
| Layout marks. | Dents. |
| Spinning marks. | Scratches. |
| Surface Tooling | Loose pieces. |
| Patterns. | Patina and Corrosion Products |
| Tools used (as well as can be ascertained; use detailed photos to illustrate). | Appearance. |
| Tracer marks in grooves. | Areas of distribution. |
| Double-striking of tools. | Analyses. |
| Burnishing marks. | Microchemical. |
| Scraper marks. | X-ray diffraction. |
| File marks. | Corrosion etching. |
| Gilding | Intergranular cracking. |
| Places of occurrence. | Where present. |
| Thickness. | Extent. |
| Color. | Shape of cracks. |
| Leaf detected. | Width of cracks. |
| Sharp edges. | Interval between cracks. |
| Overlaps. | Redeposited silver. |
| Tears in leaf. | Fossil textile impressions. |
| Analyses. | Accretions |
| Niello | Dirt. |
| Places of occurrence. | Paint. |
| Method of inlay. | Lacquer. |
| Appearance of bottoms of grooves. | Appearance in Ultra-violet Light |
| Tools used. | Long-wave. |
| Analyses. | Short-wave. |
| Spectrographic. | Former Repairs and Cleaning |
| X-ray diffraction. | Repair construction. |
| Method of Fabrication, Construction, Assembly | Prior cleaning. |
| Where do members join? | Where. |
| Join type. | When. |
| Overlap. | By whom. |
| Solder. | Method used. |
| Solder paillons seen. | General Condition |
| Double-wall construction. | Summary |
| How determined. | |

EXAMINATION OF THE STROGANOFF PLATE
(Freer Gallery Number 34.23)

Date

Begun February 16, 1968.

Examiner

W. T. Chase.

Place Examined

Freer Gallery Technical Laboratory.

Object

Stroganoff plate (FGA 34.23). Sasanian silver plate stylistically dated fourth century A.D.² It is a shallow silver bowl showing a mounted king hunting two boars.

Owner

Freer Gallery of Art. Previous owner, H. Kevorkian of New York.

Previous History and Place of Origin

Reported by Smirnov (*Oriental Silverwork*, St. Petersburg, 1909, pl. XXIX, no. 57) as having been found in 1872 in Wereino, Government of Perm. Formerly in the Stroganoff Collection, St. Petersburg, the plate was acquired by the Freer in 1934. In 1935, Mme. Tatonia Tchernavin, formerly of the Hermitage Museum, Leningrad, saw the plate and recognized it as the Stroganoff plate. Smirnov's measurement of the plate, 0.29 m., does not correspond with our measurement of about 0.24 m. Both photographs, however, show the same plate. While the rear haunch of the lower boar is in place in Smirnov's pho-

tograph, the dent behind this haunch is visible on both photographs (compare *figs. 1* and *2*). The rest of the details also appear to be identical. The discrepancy in measurements (5 cm.) must be due to a typographical error in Smirnov, and we can conclude that this is actually the plate found in 1872.

Sketch and/or Photograph

See *figure 1*.

Measurements

Height (height of top edge above flat surface, when foot is resting on the flat surface): 4.70–4.95 cm.

Width at rim: 23.9 cm.

Length at rim: 23.9 cm.

Thickness at rim: 2.65 mm.

Thickness just above proper left front hoof of upper boar: 1.38 mm.

Thickness of hoof: 1.33 mm. (not a certain measurement; this spot is difficult to measure).

Cross section: See *figure 4*.

Weight

870.2 g.

Specific Gravity

8.4. (Note: This test is of doubtful value in most cases and can be somewhat dangerous for the object, as it requires immersion in a fluid. In this case, the specific gravity is quite low compared with the theoretical value for silver, 10.5. This low value is due to the hollows under the attached parts of the plate, into which the fluid did not penetrate.)

Hallmarks, Inscriptions, etc.

There are what appear to be random scratches under the foot (*fig. 3*). A scratched

² The piece has been published often; see for example, Arthur Upham Pope, *A Survey of Persian Art*, London and New York, 1938–39, Vol. IV, plate 211; Dorothy Shepherd, "Sasanian Art in Cleveland," p. 76.

circle surrounds two plugs from possible sampling (see below, *Radiography*).

On the outside of the plate, on the edge near the king's scarf, is a hallmark bearing the number 84 (*fig. 5*).³ It is about 4 mm. long. Another partial impression of the same hallmark appears inside the foot.

Accessories

None.

Composition

Apparent composition: Silver, gilded.

Chemical analyses: Samples taken.

(A). A sample was taken from the rim near the foot of the upper boar. A number 60 drill was used (d.=1.0 mm.) in a pin vise. This sample was separated into two portions, bottled, and numbered 34.23.A.1 and 34.23.A.2. Each sample weighed about 10 mg. The sample hole was tapped and filled with threaded dead-soft modern sterling silver wire, which was then peened over with a hammer handpiece on a flexible-shaft tool. The wire end was then smoothed to the exact contour of the piece with a rubber-pumice composition wheel, also in the flexible-shaft tool. Sample holes filled this way are practically invisible to the naked eye. All four samples and holes were treated in this manner.

(B). A sample was taken from the foot of the vessel, with a number 55 drill (d.=1.3 mm.). This sample was separated, numbered 34.23.B.1 and 34.23.B.2, and the hole was plugged as above.

(C). A sample was taken from the hoof of the horse. We attempted to drill

into the bottom of the hoof, but this was unsuccessful. The sample was taken from the front of the hoof, i. e., normal to the front surface of the plate. A number 60 drill was used. This sample was separated, numbered 34.23.C.1 and 34.23.C.2, and the hole was plugged as above.

(D). A sample was taken from the crown of the king behind the crenellation, using a number 55 drill. This sample was separated, numbered 34.23.D.1 and 34.23.D.2, and the hole was plugged as above.

At this time a small sample was taken from the rim around the lost haunch of the lower boar to use for metallography. Unfortunately, the area sampled was very heavily worked and not indicative of the rest of the plate, so no metallography will be reported here.

A sample of the green corrosion around the foot was also taken at this time (see below, *Patina and Corrosion Products*). The set of samples labeled with a final digit 2 above were given to the Spectrographic Laboratory of the United States Geological Survey for spectrographic analysis, the results of which are shown in Table I. The elements are presented in the order of abundance to correspond to the ordering shown in the table in Gettens and Waring's article.⁴ The spectrographic method is the same as that described in Gettens and Waring's article, the same instruments were used, and the results are comparable. This method gives re-

³ This feature was first noticed by Martin Amt, Museum Specialist.

⁴ Rutherford J. Gettens and Claude L. Waring, "The composition of some ancient Persian and other Near Eastern silver objects." *Ars Orientalis* II, 1957, pp. 83-90.

sults which have a considerable margin of error, ± 50 percent of the reported value. They are reproduced here exactly as received from the Geological Survey.

Table I conveys a number of interesting bits of information. To begin with, the three analyses of the rim, done in 1957 (Analysis I, previously published in Gettens and Waring, p. 88, no. 7), 1966 (Analysis II) and 1968 (Analysis III) show remarkable consistency. Copper, of course, excites in the spectrographic arc very well and in this case a variation of 5 to > 10

percent is not surprising. The percentages of gold, lead and tin all are very close within experimental error. Some of the amounts of the trace elements are not within the ± 50 percent range, but this might possibly be due to local differences in the composition of the plate, or to other causes.

Interestingly enough, we can see differences in the analyses of the other members of the plate. For example, the gold content of the four spots tested varies from 1.0 to 1.5 and 2.0 percent. The lead, tin and trace element contents also vary. These show that the four pieces are probably sep-

TABLE I
SPECTROGRAPHIC ANALYSES OF 34.23
(In percent)

| | I RIM (1957) | II RIM (1966) | III 34.23.A.2 RIM (1968) | IV 34.23.B.2 FOOT OF VESSEL (1968) | V 34.23.C.2 HOOF OF HORSE (1968) | VI 34.23.D.2 CROWN OF KING (1968) |
|----|--------------------|---------------------|-----------------------------------|--|--|---|
| Ag | >10 (M) | Major >10 | >10 (M) | >10 (M) | >10 (M) | >10 (M) |
| Cu | 1-10 | 5 | >10 (M) | >10 (M) | >10 (M) | >10 (M) |
| Au | 0.1-1.0 | 1.0 | 1.0 | 1.5 | 2.0 | 1.5 |
| Pb | 1-10 | 2.0 | 2.0 | 1.0 | 1.5 | 1.5 |
| Zn | not detected | not detected | not detected | not detected | not detected | not detected |
| Sn | 0.01 -0.1 | .01 | .015 | .002 | .005 | .007 |
| Bi | 0.01 -0.1 | .07 | .07 | .07 | .07 | .07 |
| Si | 0.01 -0.1 | .005 | .0015 | $<.001$ | .03 | .007 |
| Fe | 0.001-0.01 | .0007 | .015 | .007 | .015 | .05 |
| Al | 0.01 -0.1 | .0007 | $<.001$ | $<.001$ | $<.001$ | $<.001$ |
| Mg | 0.001-0.01 | .0002 | $<.0001$ | $<.0001$ | .003 | $<.0001$ |
| Ca | not detected | .0002 | $<.0003$ | $<.003$ | .001 | .0003 |
| Ti | 0.001-0.01 | .0002 | .001 | 0 | .0015 | .003 |
| Mn | not detected | 0 | .003 | .0001 | .0015 | .0001 |
| Ba | not detected | 0 | .0005 | .0003 | .0005 | .002 |
| Ni | not detected | .0005 | 0 | .005 | 0 | 0 |
| Cr | 0.001-0.01 | 0 | 0 | 0 | 0 | 0 |

arate and made from metal of slightly different compositions.

The speculation that gold and bismuth appear in the same order of magnitude in ancient silver does not seem to hold in this case (see Gettens and Waring, p. 87).

The series of samples with the final digit 1 was given to Maurice Salmon of the Conservation-Analytical Laboratory, Museum of History and Technology, Smithsonian Institution, for analysis by X-ray fluorescence spectrography. Unfortunately, no results are available from this experiment at this time.

Metallography

None performed.

Vickers Hardness

Not performed.

Brittleness

The metal does not appear to be very brittle. No breaks are seen on the piece, and the silver is apparently quite tough, judging from the dents.

Radiography

Three radiographs were taken at the Naval Ordnance Laboratory, White Oak, Maryland, on January 19, 1968. The conditions of exposure are as follows:

No. 5.⁵ Plate face up, film underneath,

⁵ The numbers above correspond to the numbers on the X-ray film. Other objects were radiographed in the same working session, and the radiographs were numbered in order of exposure. At the Sasanian Silver Conference on February 29, 1968, Professor D. F. Gibbons suggested placing a silver stepped density wedge on the film of any radiographs taken. Unfortunately, this was not done for these radiographs. The radiographs are reproduced here as the films actually appear; that is, the thicker portions of the objects appear white. The background has been masked.

250 kilovolts, 10 milliamps, 45 seconds, tube to film distance 6 feet, type M film (*fig. 8*).

No. 11. Plate face up, film underneath, 250 kilovolts, 10 milliamps, 30 seconds, tube to film distance 6 feet, type M film (*fig. 7*).

No. 13. Plate face down (along with FGA 57.20), 250 kilovolts, 10 milliamps, 3 minutes, tube to film distance 6 feet, type M film (*fig. 9*).

Lead screens were used in all cases.

Observations:

(A). On radiograph number 13 (*fig. 9*), cores can be seen clearly in the head (detail, *fig. 10*) and in the leg (detail, *fig. 12*). These show up as dark areas inside the lighter, solid metal of these pieces. This leads us to assume that these two members are cast.

(B). No double-wall construction can be seen at the rim in radiograph number 13. This radiograph was taken specifically to see if a double-wall was present, and the rim was placed next to the film for this purpose. So, the plate is of single-wall construction.

(C). A bright dot occurs under the plume on the front proper right shoulder of the horse (*fig. 11*). This is just as bright as the foot of the plate, and is due to a silver wire which runs upwards from inside the foot (see below). A less bright dot occurs above the first, and this second dot is also due to a wire. If these wires are driven all the way to the back of the horse's shoulder, this proves that the inlaid piece is made from a thin sheet of metal and that the inside surface follows the relief on the outside. A repoussé technique for the inlaid pieces would explain this feature.

(D). The repoussé hypothesis is confirmed by examination of radiograph number 11 (*fig. 7*). Let us look, for instance, at the head of the lower boar. The portions of the repoussé which are highest are dark, and the vertical sides of these are light, showing that the piece is made from a thin sheet. This alternation of light and dark also can be seen on the horse and on the hand of the king. We can also see hammer marks on the back of the repoussé pieces; these show up as a cloudiness, and can best be seen on radiograph number 5 on the rear haunch of the horse.

(E). The ball on top of the crown may be another cast piece, as it appears to have a core.

(F). The bubbles in the solder around the foot of the plate can clearly be seen (*fig. 11*).

(G). There are dark areas which run around the plate. These might be raising courses or marks from spinning.

(H). One thing which is hard to explain is the light appearance of the parts which are not set-in, such as the bodies of the boars. This may be partly due to the gilding and partly to slight extra thickness in these parts. In some places, as around the king's bow, a dark area shows up. This evidence suggests that the metal has been worked from these parts into the raised portions, as was done on plates in the Mildenhall treasure.⁶

(I). The number of separate members seen are:

1. The body of the plate.
2. The foot.

⁶ Herbert Maryon, "The Mildenhall Treasure—Some Technical Problems: Parts I and II," *Man*, Vol. XLVIII, 1948, pp. 25-27, 38-41.

- 3 and 4. The boars' heads.
- 5 and 6. The boars' front haunches.
- 7 and 8. The boars' rear haunches (No. 8 is now missing).
9. Horse's front proper right hoof.
10. Horse's chest.
11. Horse's head.
12. Horse's rear haunch.
13. Decoration above back of horse.
14. King's quiver.
15. King's lower leg.
16. King's hip and upper leg.
17. King's chest and shoulder.
18. King's head.
19. The ball above the crown.

These are shown diagrammatically in *figure 14*.

From the above, we can clearly see that radiography is the single most important test that can be applied to Sasanian silver as Professor Cyril Smith pointed out at the Sasanian Silver Conference. Radiography has also the great advantage of being non-destructive, and with the right equipment it is simple and fast. An archive of radiographs of Sasanian silver would be of unparalleled value to technical investigators.

Fabrication Tooling and Construction

Number of members: 19 (see above).

Hammer marks: A few can be seen, especially on top of the rear haunch of the horse and also on the radiographs. No large areas are visible to the naked eye.

Raising courses: Possibly seen on radiograph (see above).

Center marks: A punch mark can be seen at the center of the foot (*fig. 6*). This is oval and about 1.6 mm. by 2.0 mm., and it is about 0.5 mm. deep. This mark is centered on the inside of the foot.

Layout marks: None seen.

Spinning marks: Possibly some inside foot.

Surface Tooling

Patterns: Circles, lozenges, traced lines, etc.

Tools used⁷ (see drawings, *fig. 19*):

1. Small oblong tracer (see ribbons which dangle from foot of king, *fig. 15*). This tool is 0.9 mm. long by 0.1 mm. across, and has rounded ends.

2. A larger tracer, 1.5 mm. by 0.4 mm., one rounded end and one tapered, was used on the outline of the lower boar.

3. A convex domed punch with outside diameter about 1.8 mm. was used on the chaps of the king (*fig. 16*).

4. A circular (annular) punch, outside diameter 1.3 mm., was used on the horse trappings (*fig. 13*).

5. A circular punch, outside diameter 0.9 mm., was also used on the horse trappings.

6. A punch like number 4, but with a nick in one side. This was used on the king's beard and on top of the crown. It could be the same punch as 4, but broken (*fig. 17*).

7. A crescent-shaped punch, about 1.0 mm. across horns of the crescent, was used on the bow (*fig. 18*).

The above is a good representation of the tool marks seen.

Tracer marks in grooves: Tracer marks are clearly seen, especially around the king's proper left hand.

Double striking of tools: Double-strik-

⁷ The measurements in this section were made to the closest tenth of a mm. with a Bausch & Lomb 7× measuring magnifier which has a metric scale with rulings 0.1 mm. apart.

ing is also seen, especially on the king's beard (*fig. 17*).

Burnishing marks: None seen.

Scraper marks: None seen.

File marks: None seen.

Marks probably made with a chisel can be seen where one was used to form a raised edge around the once-inlaid rear haunch of the lower boar (*fig. 20*).

Gilding

Places of occurrence: Gilding occurs on the two boars, the horse and the king, but not on the king's face or neck. It also shows on his bow, his crown (the crenellations but not the top), the ball above the crown, the king's hair, larger ribbons, on the ends of the ribbons from his waist, inside the rim, and in a fine line which encircles the plate outside the rim.

The gilding has worn off on the high spots, as on the center of the quiver and on the hoof of the horse.

Thickness: Very thin, worn in many spots. No attempt at measuring thickness was made.

Color: Bright yellow.

Leaf detected: None detected.

Grainy accumulations in grooves: These are clearly seen and some overlapping or spill of the gold onto the background can be seen, especially around the upper boar. Therefore, this is probably mercury gilding.

Analyses: None made at this time.

Niello

None seen.

Method of Fabrication, Construction and Assembly

Where do the members join? This has been indicated above, and can be seen diagrammatically on *figure 14*.

Join type (overlap or solder?): In almost all cases, these appear to be overlap joins; that is, one piece of metal overlaps another to hold it in place. The only solder seen is that which holds the foot in place. Solder paillons were not seen on this piece.

Double-wall construction: This method of fabrication was not seen on this piece.

Construction technique of plate: The plate was probably raised before inlaying, as the walls thin out toward the outside (see cross-section, *fig. 4*).

Design repoussé, cast, chased, etc.: Some pieces were cast, some were made by repoussé; both types were inset and then chased, as the chasing marks run over onto the body of the plate. The piece was then gilded.

Defects

Breaks: None seen.

Losses: Rear haunch of lower boar (*fig. 20*).

Dents: A few dents can be seen, especially one under the lost haunch of the lower boar.

Scratches: A number of scratches occur all over the piece.

Loose pieces: The rear portion of the horse is loose on the top.

During a superficial cleaning with petroleum benzine, we noticed that a gel formed around the seam which surrounds the piece. We thought that this piece might be waxed in, as some remnants of wax could be seen in the area of the lost haunch of the lower boar; wax was apparently used to hold the haunch in.

To test this hypothesis we heated this area with a 150-watt lamp bulb and pried the top of the piece loose; the bottom stayed

attached, and it is a very good fit. Microscopic examination of the area underneath revealed a resinous substance, much corrosion, and some fibrous material, apparently wood chips. The back also can be seen to be concave, which confirms the evidence of the X-ray. As indicated above, the bottom portion of the seam fits so well that it is hard to believe that the piece was ever removed. The resinous material might be original; and we are led to the further hypothesis that some of the appliqué pieces were first glued in, then the rim which holds them in was peened around them, and finally the chasing of design was completed.

Patina and Corrosion Products

The only corrosion products seen are green ones on the solder around the foot and some very thin black areas on the back which are probably due to normal tarnish.

Analyses:

Microchemical: The green corrosion product dissolves in dilute hydrochloric acid and tests positively for copper with potassium mercuric thiocyanate. Some brownish insoluble residue is left.

X-ray diffraction: The green corrosion product was mounted on a spindle, and its X-ray powder diffraction pattern was photographed on Freer film F1495. This shows poorly-defined lines of both malachite and cerargyrite.

Corrosion etching: Some light corrosion etching can be seen on the front surface of the plate, especially in the area above the horse's proper right front leg.

Intergranular cracking: None seen.

Redeposited silver: None seen.

Fossil textile impressions: None seen.

Accretions

The only accretion seen is the wax in the area of the lost haunch of the lower boar. This dissolves in petroleum benzine and looks waxy. Otherwise, no accretions can be seen.

Appearance in Ultra-violet Light

Long-wave: The appearance is normal, that is, deep purple without any light fluorescence.

Short-wave: The appearance is normal, except that around some of the inlaid pieces and especially around the groove in which the lost piece of the lower boar was inlaid there is a light fluorescence. The fluorescence might result from the wax used to hold this piece in place or from the resin mentioned above.

Former Repairs and Cleaning

Repair construction: No repairs were seen on this piece.

Prior cleaning: In 1953 the piece was lightly cleaned by R. J. Gettens in the Freer Laboratory with a commercial silver polish; a final polish was given with a rough cloth, and the piece was sprayed with Krylon acrylic lacquer. Cleanings prior to this one are difficult to define. One must suppose that the piece was cleaned after excavation and again after Smirnov's photograph was taken. It is impossible, however, for us to state the methods used or where the cleanings were done.

General Condition

Except for the loss, the general condition of the piece is extremely good.

Summary

We can be reasonably sure of these points:

1. The object was fabricated from a number of pieces inlaid into an already formed plate, decoration was chased on, and the piece was then gilded.

2. Some of the pieces were probably cast, and some were probably raised from sheet. Different methods of fabrication were used for different pieces.

3. The foot is soldered on.

4. A selection of chasing tools was used in finishing the piece.

5. The craftsmen who made this piece were very sophisticated and employed a large variety of techniques. It is a tribute to their skill that we have difficulty in unraveling what they have done.

EXAMINATION OF A SILVER BOWL
WITH A BACCHANALIAN SCENE
(Freer Gallery Number 64.10)

Date

Begun February 15, 1968.

Examiner

W. T. Chase.

Place Examined

Freer Gallery Technical Laboratory.

Object

Shallow silver dish with Bacchanalian scene (FGA 64.10).⁸

Owner

Freer Gallery of Art. Previous owner, M. Mahboubian of New York.

Previous History and Place of Origin

Not known.

⁸ See Richard Ettinghausen, "A Persian Treasure," *Arts in Virginia*, Winter 1967-68, VIII, 1 and 2, p. 39.

Sketch and/or Photograph

See *figure 21* for a view taken with diffused spotlights before cleaning and *figure 22* for a view taken with a full tent lighting technique after cleaning. It is interesting to note that the lighting with spotlights gives a definite metallic appearance to the photograph, while the photograph taken in completely diffused tent lighting gives the impression of an engraving or drawing while preserving every line of the detail more clearly than the non-diffused lighting.

Measurements

- Height: 4.4 to 4.0 cm.
- Width at rim: 21.75 cm.
- Length at rim: 21.70 cm.
- Thickness at rim: 3.2 mm.
- Thickness of body near club of Herakles: 1.21 mm.
- Thickness of body including club of Herakles: 1.43 mm.
- Thickness at shoulder of lion: 2.03 mm.
- Thickness just below Herakles' foot: 0.97 mm.
- Height of foot of vessel: 0.85 to 1.0 cm.
- Thickness of foot away from vessel: 2.23 to 2.45 mm.
- Thickness of foot near vessel: 4.0 to 4.3 mm.
- Width of foot (outside diameter): about 7.5 cm.
- Cross section: See *figure 23*.

Weight

841.2 g.

Specific Gravity

- In water: 10.2.
- In carbon tetrachloride: 10.25.
- The good agreement between these val-

ues gives us confidence that the specific gravity measurement is close to the correct value. This value, 10.2, is very close to the theoretical value for silver, 10.5; the value of 10.2 would indicate a silver content of about 90 percent,⁹ and that the plate is probably solid (see also *Specific Gravity* entry under 34.23).

Hallmarks, Inscriptions, etc.

The only inscription seen is a possible Pahlavi weight mark on the bottom, inside the foot (*fig. 24*). Richard Frye of Harvard University has attempted to read this weight mark, but found it illegible. No hallmarks were seen.

Accessories

None.

Composition

Apparent composition: Silver, gilded (see under *Specific Gravity*).

Chemical analyses: Samples taken.

(A). A sample was taken from the proper right elbow of Bacchus. A number 55 drill was used, and the hole was then tapped with an 0-80 tap. The drillings were separated into 5 and 10 mg. portions and numbered 64.10.A.1 and 64.10.A.2, and the hole was plugged as indicated under 34.23 *Composition* above. No discontinuity was seen in the drill hole. This adds credence to the idea that these raised portions are integral with the plate.

(B). A sample was taken from the rim, near the dancer, at about 9:00 looking at the plate as a clock face. This was drilled with a number 61 drill (d.=0.1

⁹ Earle R. Caley, *Analysis of Ancient Metals*, Oxford, etc., 1964, p. 59.

mm.), tapped 00-90, and plugged as above. The sample was separated into 5 mg. and 10 mg. portions and numbered 64.10.B.1 and 64.10.B.2.

(C). Scrapings were made inside the foot on a previously scratched area. A steel machinist's scraper was used. The sample was separated into two portions and numbered 64.10.C.1 and 64.10.C.2.

(D). A sample was taken from the foot, using a number 60 drill. Two shallow holes were drilled, and the drillings were separated into two portions numbered 64.10.D.1 and 64.10.D.2. The holes were plugged as above.

A sample was taken at this time for metallographic examination from the break near the vine pattern. The corrosion products were also sampled in two spots: (1) A sample of the calcareous material on the outside of the rim above the head of Bacchus; (2) the corrosion product inside the rim of the foot.

The set of samples marked with a final digit 2 were given to the Spectrographic Laboratory of the United States Geological Survey for analysis (see above, 34.23, *Composition*). The results of this spectrographic analysis are shown in Table II.

TABLE II
SPECTROGRAPHIC ANALYSES OF 64.10
(In percent)

| | III 34.23 RIM (1968) | VII 64.10.A.2 FROM P.R. ELBOW OF BACCHUS | VIII 64.10.B.2 FROM RIM | IX 64.10.C.2 SCRAPINGS INSIDE FOOT | X 64.10.D.2 FROM FOOT |
|----|----------------------------|--|-------------------------------|--|-----------------------------|
| Ag | >10 (M) | >10 (M) | >10 (M) | >10 (M) | >10 (M) |
| Cu | >10 (M) | >10 (M) | >10 (M) | >10 (M) | >10 (M) |
| Au | 1.0 | 1.5 | 1.5 | 1.5 | 1.5 |
| Pb | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 |
| Zn | 0 | .2 | .1 | .07 | .15 |
| Sn | .015 | .05 | .05 | .05 | .05 |
| Bi | .07 | .05 | .05 | .05 | .05 |
| Si | .0015 | <.001 | .007 | .01 | <.001 |
| Fe | .015 | .007 | .01 | .01 | .02 |
| Al | <.001 | .03 | <.001 | <.001 | <.001 |
| Mg | <.0001 | <.0001 | <.0001 | .01 | .003 |
| Ca | <.0003 | .003 | .0015 | .3 | .01 |
| Ti | .001 | 0 | 0 | 0 | 0 |
| Mn | .003 | .0001 | 0 | 0 | 0 |
| Ba | .0005 | .0003 | .0003 | .0005 | .0003 |
| Ni | 0 | .005 | 0 | 0 | 0 |
| Cr | 0 | 0 | 0 | 0 | 0 |

These analyses are very similar within the margins of error of the spectrographic technique, leading us to the conclusion that the plate is made from a solid piece of silver. The major discrepancies are in the Si and Ca contents. The scraped sample (64.10.D.2) analyzes highest in both silicon and calcium, which were probably picked up from the surface. The zinc contents are also somewhat variable, which might possibly come from the fact that zinc does not excite well spectrographically, or from segregation in the alloy.

Also the analysis says nothing which would make us doubt that the alloy is about 90 percent silver, although the copper content stated in the analysis may be a little high due to the fact that it excites very well in the spectrograph. The speculation about the gold-bismuth ratio does not hold up in this case either.

The series of samples with the final digit 1 was given to Maurice Salmon of the Conservation-Analytical Laboratory, Museum of History and Technology, Smithsonian Institution, for analysis by X-ray emission spectrography. Unfortunately, no results are available from this experiment at this time.

Metallography

One sample was taken in a thin, broken spot above the vine pattern, at about 2:00, viewing the plate from the front as a clock face.

This sample was polished for metallographic examination in this fashion:

The sample was mounted in "Quick-mount" self-setting plastic, without the application of any pressure or heat other than that generated by the plastic. It was

then ground wet, by hand on successively finer grades of silicon carbide abrasive paper (grades 180, 240, 300, 400, 600), washing carefully between each one. Fine grinding was then completed on a nylon lap charged with 6 μ diamond paste in a lapping oil. The sample was washed with naphtha, cleaned ultrasonically, and then dried from alcohol.

The next step in the preparation was the coarse polishing, accomplished with 0.3 μ α -alumina on a Buehler Micro-cloth-covered lap. The sample was washed and dried as above, and then the final polish was given with 0.05 μ γ -alumina alternating with an etch in 5 parts concentrated NH_4OH and 3 parts 3 percent H_2O_2 .¹⁰ This alternate polishing and etching action gave a good final appearance to the specimen.

On the prepared specimen one can observe a very fine grain size, annealing twins, and elongation of the inclusions, which are probably copper oxide. These three observations lead us to conclude that the piece was heavily cold-worked and annealed (*fig. 25*). This compares well with the grain structure of a heavily cold-worked and lightly annealed specimen of sterling silver made in the Freer Technical Laboratory (*fig. 29*), but not at all well with cast or cold-worked and not annealed specimens (*figs. 26–28*).

Vickers Hardness

None performed.

Brittleness

The metal of the plate was found to be extremely brittle at the point where the metallographic sample was taken.

¹⁰ George L. Kehl, *The Principles of Metallographic Laboratory Practice*, New York, 1949, pp. 430 and 431.

Radiography

One radiograph was taken at the Naval Ordnance Laboratory, White Oak, Maryland, on January 19, 1968. The conditions of exposure were as follows:

No. 6¹¹ Plate face down, film underneath, 250 kilovolts, 10 milliamps, 45 seconds, tube to film distance 6 feet, type M film (*fig. 30*).

Observations:

(A). This radiograph is less dense than radiograph number 5 of 34.23, taken under the same conditions. This shows that the metal of 64.10 is thicker, especially around the central area.

(B). The background is fairly even, but shows some circular areas of greater density, especially just outside the foot and about 2 cm. in from the rim. The engraved lines around the figures come out very dark, and there are some dark, cloudy areas around the figures, most clearly seen under the proper right elbow of Bacchus and around Herakles' knee.

(C). The figures appear to be solid with the plate. No evidence of inlaying is seen. The least dense portions of the radiograph appear where there is highest relief, which is where the greatest thickness of metal occurs. In a repoussé or cast piece with a core the opposite is true.

(D). The foot of the plate appears clear white on the radiograph. No solder is seen in this area.

(E). The gilding shows up as uneven with somewhat spongy-appearing light areas around the outlines of the figures.

Previous to our acquisition of the piece a radiograph was taken at the Metropoli-

tan Museum of Art, New York.¹² This radiograph was taken at 75 kilovolts, and shows only details around the edges of the plate. It again illustrates the thinness of the metal in the area near the rim, and also exhibits cloudy areas of light and dark here, indicative of some sort of working of the metal.

Fabrication Tooling and Construction

Number of members: Only one member is apparent, the plate with integral foot and figures. No seams can be seen around the figures even near the small figure on the proper left in the exergue where a split in the metal makes the figure visible edge on. The relief of the figures is lower than that on many silver plates. No discontinuity was evident when the plate was sampled (see above). Also, no solder was detected around the foot, even after selective etching with various etches designed to bring out the contrast between the solder and the silver.

Hammer marks: None was seen on the back. On the front, hammer marks were seen in a few areas, especially under the gilding. These marks looked as if they were left by a rounded hammer.

Raising courses: None seen.

Center marks: A center mark is present under Bacchus' proper left thigh. This mark is about 1.6 mm. across and about 0.5 mm. deep. It appears to have been used for turning. The edges are smeared and bent over, and there are circular marks in the slight crater around the hole.

Layout marks: None seen.

¹² I would like to thank Kate Lefferts, Associate Conservator in Charge, Metropolitan Museum, for bringing this radiograph to my attention.

¹¹ See note 5, above.

Spinning marks (see above): There are also two circular grooves around the center mark and there are circular tool marks inside the foot (*fig. 24*). The two grooves are concentric with the center mark; the foot, however, is not, and in fact is offset by about 3 mm. While this observation might lead one to believe that the foot was applied later, no evidence of solder was seen, and we postulate that the foot may have been trimmed in a different turning operation from that which produced the grooves. In a few spots inside the foot, what may be chatter marks can be seen where a tool might have bounced while the piece was spinning.

Surface Tooling

Patterns: Dots, bosses, traced lines, etc.

Tools used (see drawings, *fig. 31*):

1. A boss pattern appears on the dividing line between the exergue and the rest of the scene. This same pattern appears on the rim of the chariot and on the rim of the chariot wheel. These were formed by a concave punch with a squarish outline on the outside, about 1.9 mm. across (*fig. 32*).

2. The earrings of the two small winged figures holding the wheel were made with an elliptical punch with major diameter 1.55 mm. and minor diameter 1.40 mm. The thickness of the wall of the punch is about 0.2 mm. (*fig. 33*).

3. A smaller punch like 2 above was used to make the earrings of the two putti in the exergue. This punch is round, with an outside diameter of 1.3 mm. (*fig. 35*).

4. A punch about 1 mm. in diameter like 2 above was used to make the circles on the lion in the exergue (*fig. 34*).

5. A still smaller punch like 2 above was used to make the ringlets on the hair of the putti in the exergue. This was also used on the hair of the winged figures holding the wheel, and it is about 0.8 or 0.9 mm. in outside diameter.

(Punches 2 to 5 above and other round punches were also used at other places in the design.)

6. A crescent-shaped punch about 1.3 mm. across the points of the crescent was used on Herakles' club.

7. A punch like 2 above but with a square outline was used on the necklaces of the central figures (*fig. 36*).

8. A large domed punch was used in the central area of the wheel (*fig. 32*).

9. A smaller domed punch was used in the eyes of the figures.

10. A still smaller domed punch was used on the dresses of the maenads.

11. A number of scorpers and tracing tools were used for the rest of the design (*fig. 37*). Some of these were actually used for engraving (removal of metal) as on the skirt of Bacchus.

Tracer marks in grooves: Yes, strongly (see 11 above).

Double striking of tools: This was also seen, especially in the chariot border and the wheel (*fig. 32*). It can also be seen on the proper left ornament which hangs from Ariadne's necklace (*fig. 36*).

Burnishing marks: None seen, although the gold must have been burnished.

Scraper marks: None seen, although there were a number of scratches on the piece.

File marks: None seen, except for some possible file marks on the bottom of the foot of the piece.



FIG. 1.—FGA 34.23, the Stroganoff plate, present condition, with cross-section through the center.



FIG. 2.—FGA 34.23, condition ca. 1909
(photo Smirnov, Oriental Silverwork, pl. XXIX).



FIG. 3.—Detail: foot of FGA 34.23.



FIG. 4.—FGA 34.23, cross-section from proper right to proper left through
center of plate.



FIG. 5.—Detail: hallmark on rim of FGA 34.23.



FIG. 6.—Detail: hallmark inside foot of FGA 34.23.

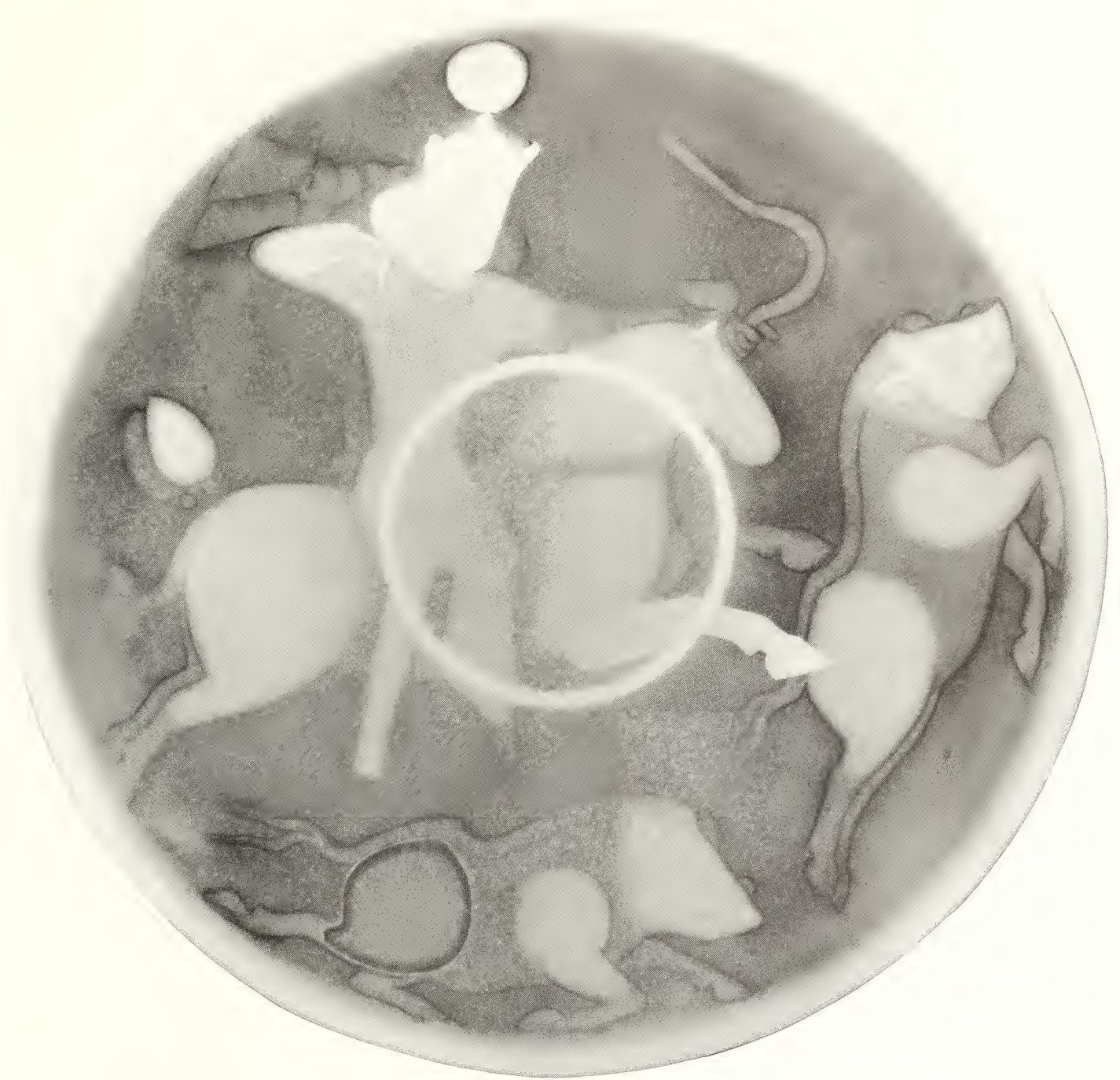


FIG. 7.—FGA 34.23, radiograph 11.

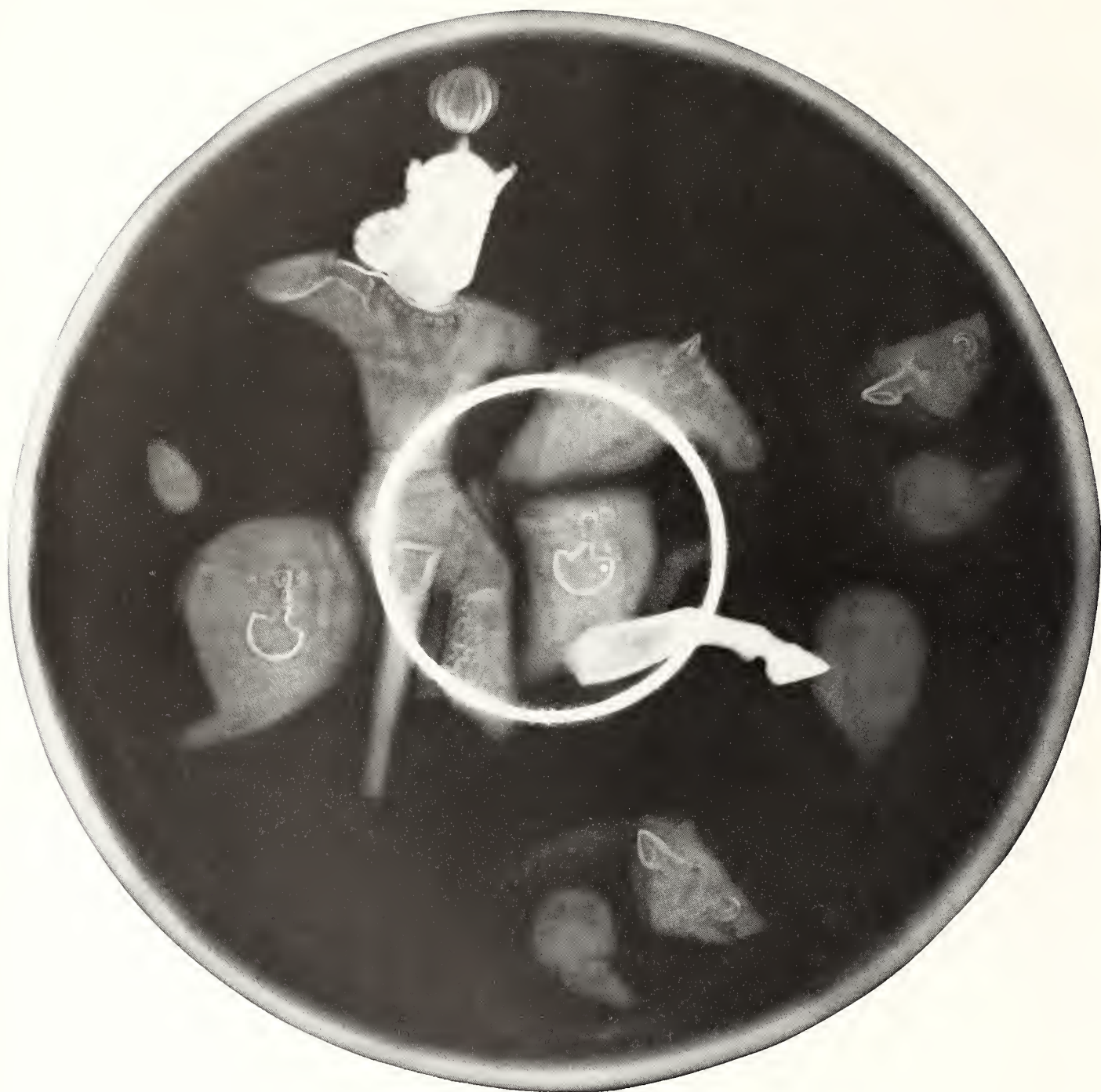


FIG. 8.—FGA 34.23, radiograph 5.

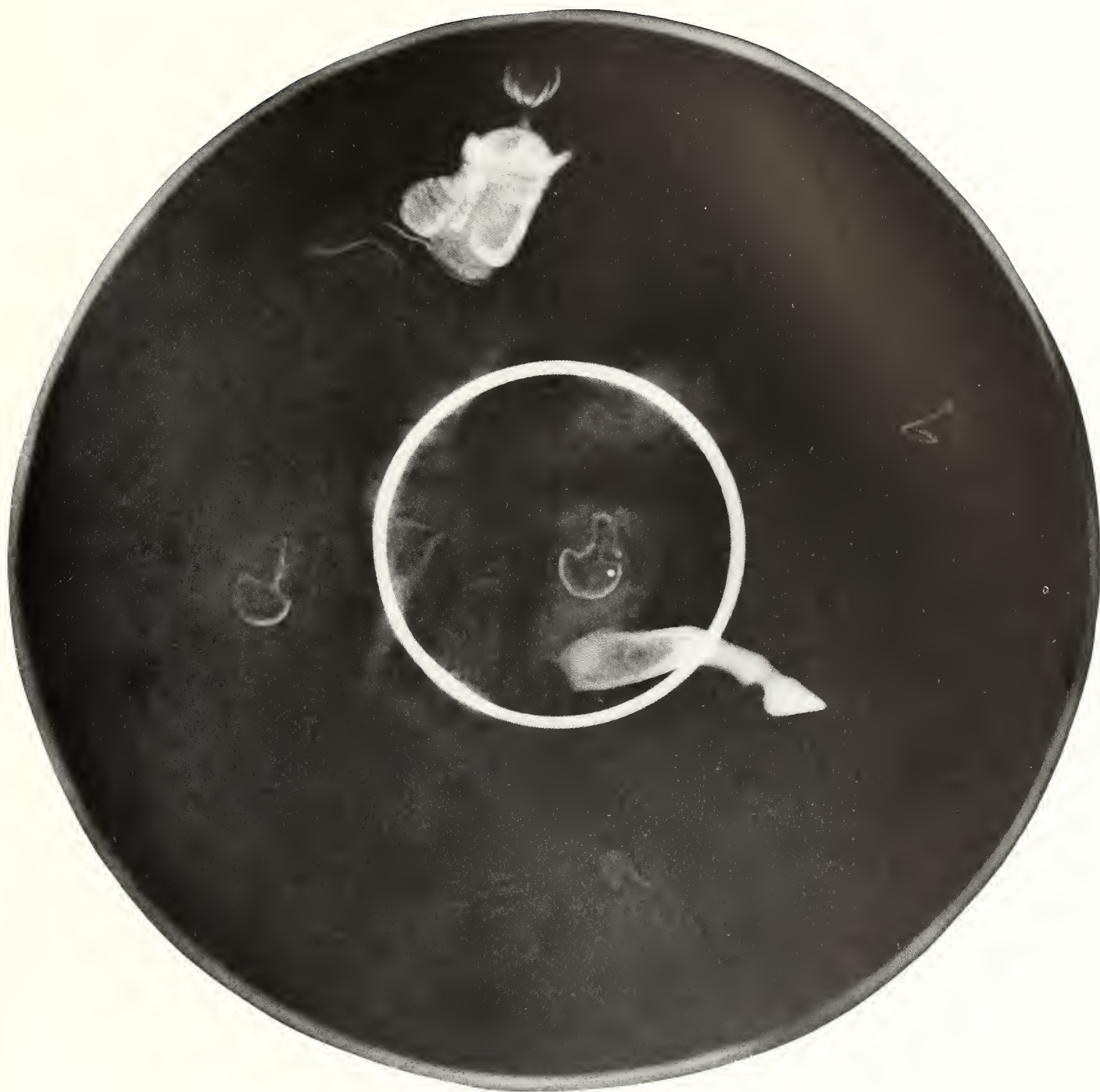


FIG. 9.—FGA 34.23, radiograph 13.



FIG. 10.—Detail: head from figure 9.



FIG. 11.—Detail: front portion of horse from figure 8.



FIG. 12.—Detail: horse's foreleg from figure 9.



FIG. 13.—Detail: horse trappings behind king's leg (FGA 34.23).

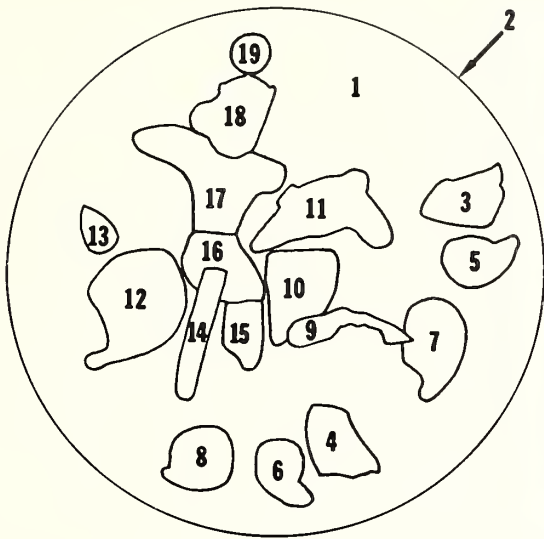


FIG. 14.—Diagram showing separate pieces on FGA 34.23.



FIG. 15.—Detail: ribbons and foot of king (FGA 34.23).



FIG. 16.—Detail: chaps behind king's leg (FGA 34.23).



FIG. 17.—Detail: beard of king (FGA 34.23).

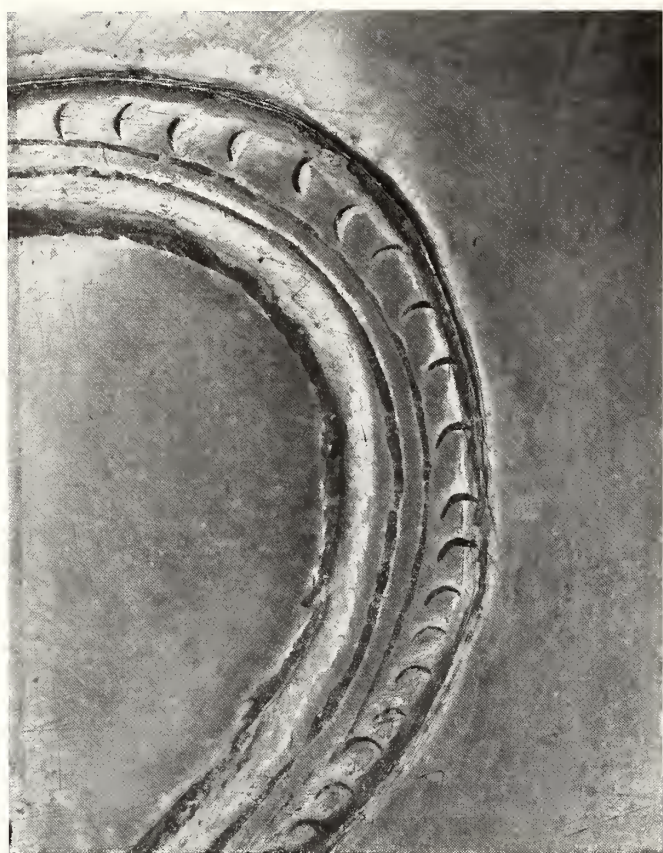


FIG. 18.—Detail: bow (FGA 34.23).



FIG. 19.—Approximate shapes of the ends of some chasing tools used on FGA 34.23.



FIG. 20.—Detail: lower boar (FGA 34.23).



FIG. 21.—FGA 64.10, before cleaning, lit with floodlights.



FIGS. 22 and 23.—FGA 64.10, after cleaning, lit with completely diffused light, and a cross-section through the center of the bowl.

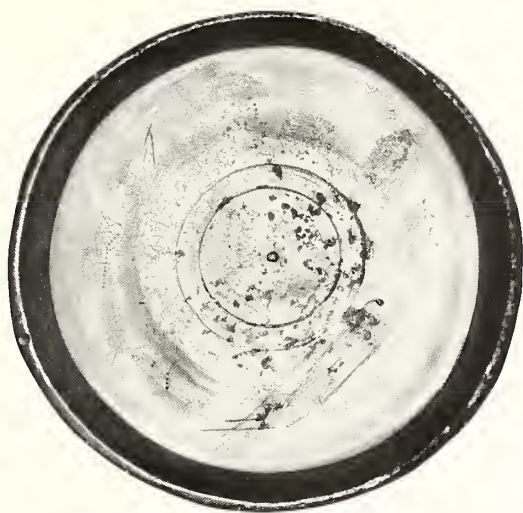


FIG. 24.—Detail: foot of FGA 64.10.



FIG. 25.—Metallograph: sample from FGA 64.10, $\times 440$.



FIG. 26.—Metallograph: cast sterling silver, ca. $\times 100$.

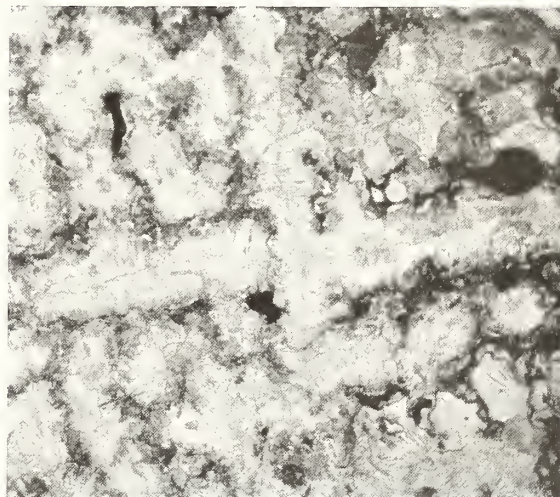


FIG. 27.—Metallograph: cast sterling silver, $\times 440$.

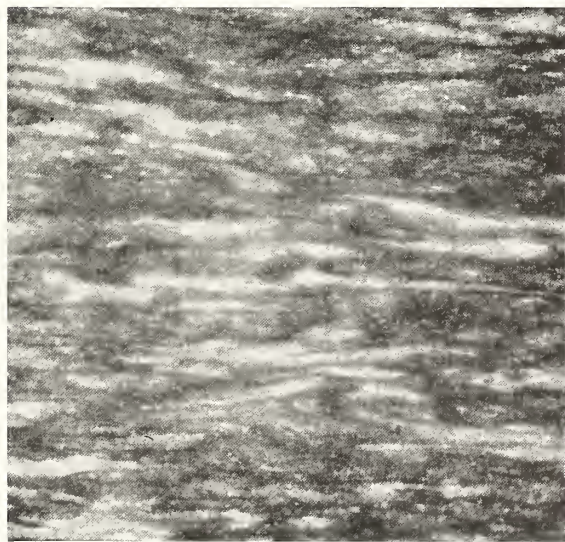


FIG. 28.—Metallograph: heavily cold-worked sterling silver, $\times 440$.

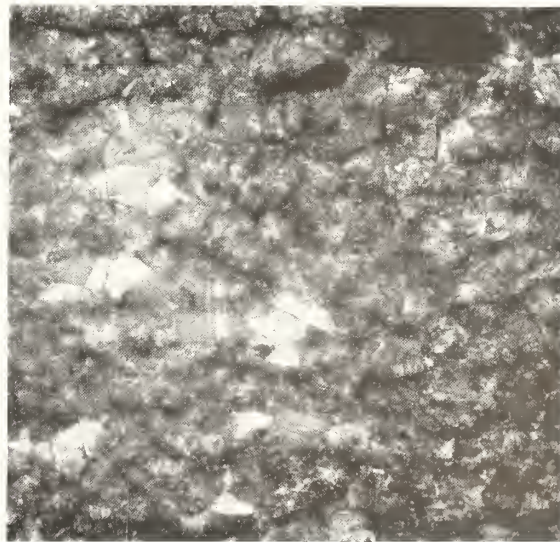


FIG. 29.—Metallograph: heavily cold-worked and lightly annealed sterling silver, $\times 440$.



FIG. 30.—FGA 64.10, radiograph 6.

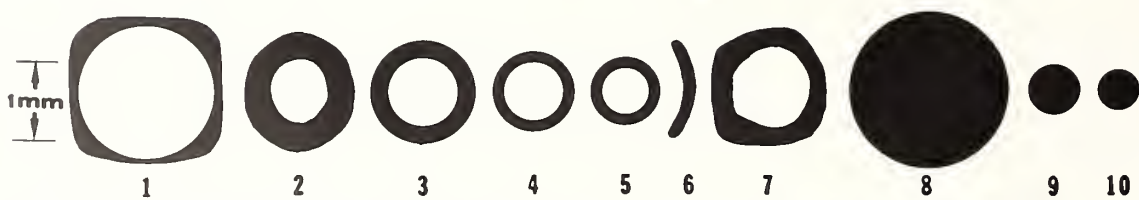


FIG. 31.—Approximate shapes of the ends of some chasing tools used on FGA 64.10.



FIG. 32.—Detail: chariot wheel (FGA 64.10).

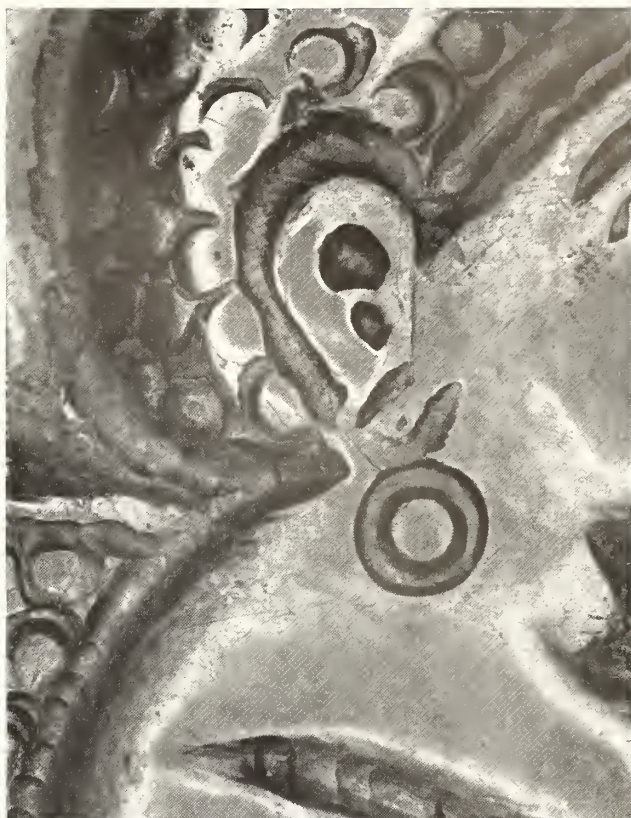


FIG. 33.—Detail: earring on putto holding wheel (FGA 64.10).



FIG. 34.—Detail: lion in exergue (FGA 64.10).



FIG. 35.—Detail: head and earring on putto in exergue (FGA 64.10).



FIG. 36.—Detail: necklace of Ariadne (FGA 64.10).

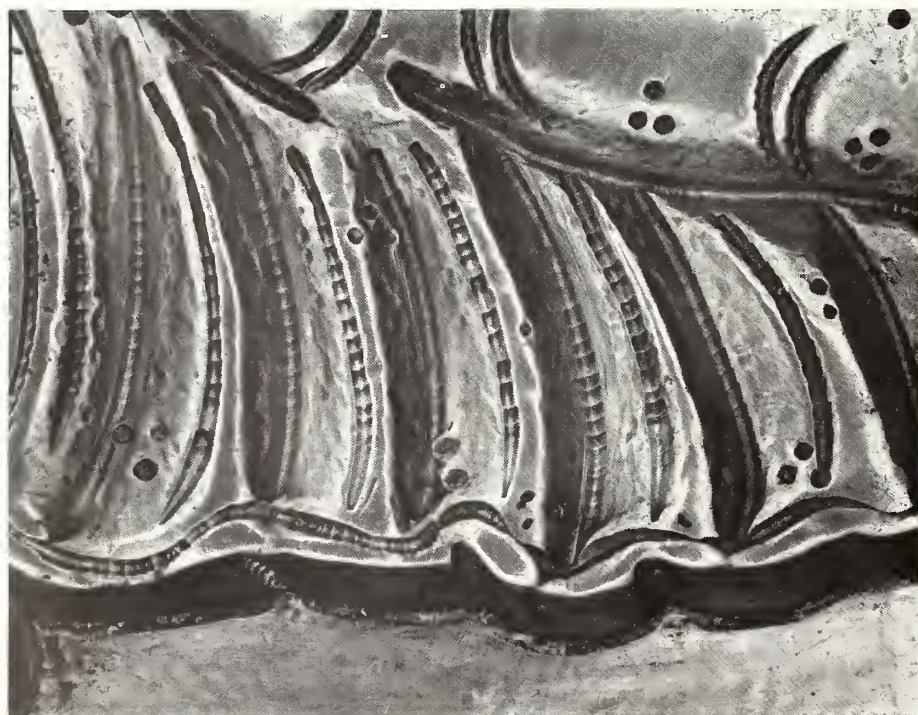


FIG. 37.—Detail: robes of Bacchus (FGA 64.10).

Gilding

Places of occurrence: Gilding occurs all over the obverse of the piece, as a ground on which the ungilded figures stand out. It appears to have been burnished, since at low points and in grooves it has a powdery, granular appearance (*fig. 37*). The gilding runs up on the design in a few spots; the grapevine for example.

Thickness: Measurement of the thickness of the gilding layer on the section used for metallography gives a thickness of 0.026 mm. (*fig. 25*).

Color: Very yellow.

Fineness: In the one spot where the gold was tested by comparison with a touch needle it tested better than 20 carats.

Leaf gilding: No evidence of leaf gilding was seen, and at all spots on the metallographic section the gold appears to be one solid layer.

Analyses: No analyses were made at this time. We conclude, however, that this piece was probably mercury gilded, judging from the evenness of the gilding, the granular appearance of the gold in the grooves and the uniformity of the gold in section.

Niello

No niello was seen on this piece.

Method of Fabrication, Construction and Assembly

This plate is made from one piece of silver. At least two methods of construction may be postulated:

1. The plate might have been cast to roughly the right shape, with some relief in the areas of the figures. The figures might then have been finished with chisels, hammers, chasing tools, etc.

2. The plate might have been made from a billet by hammering and annealing to move metal into relief. This would, again, be a technique similar to the Mildenhall technique outlined by Maryon. The extreme thinness of the plate at the outside may indicate a technique like this, combined with a spinning or turning technique to smooth down the back. We have not been able to amass enough evidence to make a definite choice between these two alternatives, or to reject both and choose another possibility. This decision may have to wait on the availability of study material of a similar type so that we may section it and view the flow lines of the metal to see the method of fabrication.

Defects

Breaks: Two breaks can be seen on this plate. One is above the first leaf in the vine pattern, and the other is above the proper left leg of the proper left figure in the exergue.

Losses: There is some loss from the break above the vine pattern.

Dents: A few dents appear on the piece, especially in the area of the upper break. The plate also appears to have been dropped or hit sharply and deformed to a shape which is slightly out of round.

Scratches: Fine scratches appear all over the obverse of the piece. These are especially deep in the field between the two small figures at 10:30, viewing the plate as a clock face. These also show on the radiograph, as does a hole in the gilding here.

Loose pieces: This plate has no loose pieces.

Patina and Corrosion Products

Appearance and areas of distribution: The corrosion products now appear only on the back of the piece, but prior to cleaning there were scattered areas of corrosion products on the front. The corrosion products are whitish to greyish with some areas of buff and warm grey.

*Analyses:**X-ray diffraction:*

1. Sample taken from reverse of rim in area above head of Bacchus. This is a white, thick crusty material. An X-ray powder diffraction pattern was photographed on Freer film F1493, which shows the lines of calcite only.

2. The pinkish corrosion products inside the foot were sampled. This is a very thin area of corrosion. These yielded film F1492, which shows the lines of calcite and metallic silver (probably from going a little too deep in the sampling).

These two samples show only what can be classed as accretions, and not corrosion products.

Corrosion etching: A little corrosion etching appears on the obverse of the plate, especially in the area of Herakles and the vine motif. Some also appears in the foot area on the reverse.

Intergranular cracking: A little cracking is seen around the loss above the vine, and can also be seen on the metallograph taken from this section. It is about 2 square cm. in extent, and of irregular shape, width and interval.

Redeposited silver: None seen.

Fossil textile impressions: In a few spots on the back a light fossil textile impression can be seen in a very thin, black corrosion

layer. This impression is too light and irregular to get a thread count.

Accretions

Portions of the back are covered with calcite (see above). Otherwise, the piece is very clean. The piece was lacquered before it was cleaned for this examination and it will be relacquered before it is replaced on exhibition.

Appearance in Ultra-violet Light

The appearance in both long-wave and short-wave ultraviolet is normal; that is, the light reflects specularly from the surface and the plate appears dark purple. No fluorescence is seen.

Former Repairs and Cleaning

Repairs: No repairs were seen on this piece, except our own silver wire fills to conceal where the piece was sampled.

Prior cleaning: The piece was cleaned in the Freer Technical Laboratory by the author in June, 1965. Ammonium thiosulfate (15 percent) in distilled water was used, and applied with wooden toothpicks, cotton swabs and bristle brushes. An ivory pick and a small (0.5 mm. wide) steel chisel were used to pick some of the corrosion off under the microscope. The area of the inscription on the back was cleaned with the same reagent and a glass bristle brush. The dish was washed with distilled water and polished with a commercial silver polish. It was then washed again and dried from acetone, degreased with acetone and lacquered with a commercial polyvinyl acetal lacquer (Alvar) diluted to 5 percent in a solvent mixture.

General Condition

The general condition of this piece is excellent.

Summary

We can be reasonably sure of these points:

1. The plate is made from one piece, although the method of fabrication is somewhat in doubt.

2. If Smirnov is correct in his assertion¹³ that the matching plate discovered in 1953 is made with an inlay technique, and that the inlay is attached with an adhesive, then we have two different techniques illustrated in two plates which are stylistically and iconographically very close.

We can only hope that in time, and with the completion and publication of more examination reports, some of the questions these two reports have raised will be answered. Let us summarize a few of these

¹³ A. P. Smirnov, "A new find of Eastern silver in the Pri-Urals," *Trudy Gosudarstvennogo Istoricheskogo muzeya, Pamyatniki kul'tury*, vyp. 25, Moscow, 1957, in Russian (tr. W. Trousdale).

questions. How are low- and medium-relief designs like those on 64.10 made? Are they really done by the Mildenhall technique, by casting followed by working, or by carving? Were the high-relief portions really glued in with an adhesive initially? What gilding methods were used on Sasanian silver? Is there any duplication of tools used on different Sasanian objects? What is the range of metal compositions that can be found in these objects? How do the fabrication techniques relate to each other, and to Roman, Byzantine and Islamic work? Can study material, which may be used without limitation, be found to aid us in our investigations? And finally, can a body of technical knowledge about this group of material aid in the art historical study of it?

We sincerely hope that this article and the conference which helped form it are two of the first steps in amassing this technical knowledge, and that these questions will eventually be answered.

THE BRONZE QALAMDAN (PEN-CASE) 542/1148
FROM THE HERMITAGE COLLECTION* (1936-1965)

By L. T. GIUZALIAN

TO THE MEMORY OF MY TEACHER, ACADEMICIAN I. A. ORBELI

THE GROWTH OF TOWN LIFE IN COUNTRIES of the Near East, especially intensive in the 10th through the 12th century, extended the circle of consumers for works of art in bronze. This extension was caused, among other reasons, by the strengthening of the power of the merchants who aspired to rights which had been the privilege of hereditary feudal families and even imitated their customs in their way of life. Under these new conditions, instead of the usual individual customers of bronze wares, anonymous purchasers appeared more and more. This phenomenon can be derived from an observation of the objects. Thus, for example, the persons for whom the articles had been made were rarely mentioned in the decorative inscriptions. Short blessings referring to the purchasers had later been replaced by longer inscriptions expressing good wishes. These inscriptions did keep their endings (*li-ṣāhibi*, "to its owner"), but, without concrete names, began to refer to an unknown impersonal buyer.

This increased demand led to new technical methods which were aimed at the acceleration of the production and distribution process and revealed the specialities of individual craftsmen. This particularly showed itself in the separation of the ornamentation of the objects from the purely technical aspect of moulding. These two

basic specialities, as we can judge from the actual examples, appeared to have been treated differently within the production system towards the middle of the 12th century.

The demand for bronze work increased; consequently the shapes of the articles, now mass produced, became more and more standard. Instead of a creative master skilled in forming and casting, now experienced craftsmen came forward. In the field of artistic processing an opposite picture can be seen. The new technical methods contributed to a thinner, more artistically refined ornamentation of the wares. Although the casting of the individual art objects remained, great stress was given to the artistic elaboration of the objects. Thus in all those cases where the article is not a specimen of an individual artistic casting and represents a common standard shape only, the name of the master mentioned on the article after the regular Arab verb form, '*amal* (made), even without an explanatory *al-naqsh* (ornamentation) or *al-*

* *Editorial note.*

The translation of this important article was fraught with many difficulties, all of which could not be overcome. For this the Editor apologizes. He would like also to draw attention to an article by R. Ettinghausen on the Herat kettle in the *Gazette des Beaux-Arts* (1943), which was unknown to the author, but which may be more accessible than Vesselovski's rare publication.

naqqāsh (decorator), referred not to the master craftsman casting the metal but to the master decorator. In certain cases both of them are mentioned at the same time.

One of the most eminent examples of the artistic bronze which reveals the connection between the widening circle of consumers and the growth of the merchant class is the famous kettle of Herat dated in 559/1163 in the Hermitage Collection.¹ The other example, not so brilliant in outer appearance, is, however, no less convincing. This is the Qalamdan (pen-case) from the same Hermitage Collection. This Qalamdan was received by the Hermitage from the former Asiatic Museum of the Academy of Sciences in 1920 with no accompanying literature. Since that time the following literature on this object has appeared: brief information in two museum catalogs and in one museum guidebook;² a small popular article dedicated especially to it;³ and the mention of it in the more specialized work of L. A. Mayer.⁴

An archive document was found inside the Qalamdan saying that "it was found

during digging the irrigation ditch of Urumbai in 1887" and that "one edge where, apparently, the ink-well was located, was broken off when the object was discovered." The memorandum does not say whether or not any other objects were found at the same time. Thus it seems to be an accidental find made near the south-east side of the Aral Sea in the area of an ancient fortress known under two names: Karakalpak-kala or Orumbai-kala.⁵ The note is signed by M. Schlitter who succeeded in reading just one of the inscriptions, the first one to be discussed later on.⁶

The Qalamdan has the shape of a parallelepiped (*fig. 1*). The length is 19 cm., the width 3.5 cm., and the height 2.5 cm. The material is light bronze which darkened because of exposure to weather and a long stay underground.

In addition to the damage noticed by M. Schlitter, which is to be seen on the right side of the photograph, there are some less important holes and dents on the Qalamdan. Moreover, both lids which used

¹ N. I. Vesselovskii, *The Bronze Kettle of Herat*, St. Petersburg, 1910. The full bibliography on the kettle presented in the work published *in memoriam* by L. A. Mayer, *Islamic Metalworkers and Their Works*, Geneva, 1959, pp. 61–62.

² The State Hermitage, *Catalogue of the International Exhibition of the Monuments of Iranian Art and Archaeology*, Leningrad, 1935, p. 363, no. 5; D. Barret, *Islamic Metalwork in the British Museum*, London, 1949, p. viii; The State Hermitage, *Culture and Art of the Nations of Middle Asia* (guidebook for the exhibition), Leningrad, 1952, p. 20.

³ L. T. Giuzalian, *The Bronze Qalamdan of 1148*, Pamiatniki epohi Rustaveli, Leningrad, 1938, pp. 217–226.

⁴ Mayer, *op. cit.*, p. 87.

⁵ The different spelling of the name *Urumbai* and *Orumbai* can be easily explained. We did not succeed in discovering a similar name in Central Asia. However, the conclusion of the author of the note points to the location of the canal in Central Asia: "... more likely we can assume that this work (the Qalamdan) is already Middle-Asian..." I am using this opportunity to express my gratitude to T. N. Senigova for presenting evidence about the fortress of Orumbai-kala.

⁶ It is not without interest to say here that in the papers of Academician V. R. Rosen a letter from M. A. Schlitter (Captain, student of the Educational Department of Eastern Languages at the Foreign Ministry) was kept which was written in 1900 from Gori (Georgia). The author of the letter raises the question of publishing his Russian translation of *Mecca* by Snouk Hurgronje; this translation never appeared.

to be attached to the hinges are missing. One of them was located on the upper side and was covering the already mentioned damaged opening in which the ink was kept. The other lid was used to cover a small opening on the wall diametrically opposite to the end of the Qalamdan. This opening was used for *qalams* (reed pens).

The entire surface of the Qalamdan is engraved, chased or inlaid with silver and red bronze. Even the rarely seen bottom was decorated with a chased border. In the ornamentation of the Qalamdan, symmetry was observed as much as possible. Even the inscriptions, which are the basic element of its decoration, are symmetrically arranged.

The Qalamdan represents compact casting since there are no traces of welding or soldering to be found on it. At that time, mostly earthen molds made after a wax model were used for casting individual metal wares. Some evidence about this process is preserved in literature.

In the poem "Khosrov and Shirin" by Nizami of Ganja there is a part at the beginning of the love story of Farkhad and Shirin where the author expressed his opinion on art and craftsmanship. Although there are many later interpolations in the poem, this passage belongs doubtlessly to the pen of Nizami as is confirmed both by its style and by the results of textual analysis. One of the lines goes as follows:

بود مرد از حساب انگشتی و لیک از موم و گل نژ آهز و زد

A literal translation would be: "Man makes a jewel through measure, the measure of wax and earth, and not of iron and gold." More freely translated this verse means: "It is important for a master jeweller to know the correlation of the wax model to

the earthenware mold rather than the proportions of iron and gold." To apply this to the casting of bronze, one has only to replace the names of the metals used. Gandja, where Nizāmi used to live (he died between 1200 and 1210), had highly developed handicrafts at that time although it did not belong to the particularly remarkable centers of metalwork. Therefore, if the above quoted line confirms Nizāmi's knowledge on handicrafts, then at the same time it proves the widespread reputation of this particular way of casting. Otherwise, the meaning of this line would not have been understandable to Nizāmi's contemporaries, which is probably the case with respect to the majority of today's readers.

The Qalamdan was made in the same way. The closed shape of the mold precluded the possibility of the simultaneous shaping of the Qalamdan's interior, and for that reason the inward side of the vessel remained plain with rough spots which are inevitable when casting. The final processing included smoothing the surface of the cast and drawing a pattern of ornaments with inscriptions. The next stage was to carve the surface, to deepen the background, and to apply the inlay. The metals used, silver and red copper, were hammered as wires into the ready channels. These channels were not always the same. In most cases they consist of two parallel furrows which are set obliquely into the thickness of the metal but which merge together at their upper end, reminding one in profile of a swallow's tail. On the outer parts of these furrows a perpendicular cut can sometimes be seen at a right or slightly acute angle. In these furrows both silver and copper wires were hammered. In some

spots, which were prepared especially for the hammering of the copper wire, the furrows were a little wider than the ones described, and they formed compact little gutters with the bottom deepened sideways in both directions. Compared to the latter ones, the formerly described channels can be considered as unfinished gutters.

The sides of the Qalamdan do not represent a single and complete decorative composition. Only the opposite walls of the object have parallel features. Whether we examine the sides separately or in parts, various questions arise, and we considered it more expedient to examine them in the order of the inscriptions. The common phenomenon for all the inscriptions, regardless of the differences in the character of writing, is that they are generally deprived of all diacritical marks.

The upper side (fig. 2). With the exception of the broken end where the edge of the openings for the ink-well rimmed by an arabesque sprout was preserved, the remaining surface is covered by two Arabic inscriptions. As was common for medieval Moslem bronzes, both of them are executed on a background of spiraling plants.

One of the Arabic inscriptions is situated in the central area surrounded by a frame with a copper wire hammered in. The inscription is stenciled with an impersonal ending, and because of the lack of space it is very short. It is in formal *naskhi* title and fully inlaid with silver:

العز والاقبال والدولة لصاحبه

"Glory, Success and Happiness to
Its Owner."

This inscription is framed on four sides by the second inscription which uses a mixture of two styles. Some words are written

in Kufic (names *Yūsuf* and *Uthmān* expressed *al-qa'dah* and so on), others in *naskhi* (the word *al-hajj*, numerals *al-ashrīn* and *arba'in*), and yet others in a combination of features from both styles (verbal form *'amal*, word *al-bayyā'*, expression *bita'rikh*, etc.).

The inscription begins at the ink-well portion which is missing: thus its beginning is coordinated with the beginning of the inscription in the central area. This inscription is mostly filled in with silver, but in rare cases some separate signs are half-decorated in copper.⁷

[ل] صاحبه على بن يوسف بن عثمان الحاج عمل عمر [بن] الفضل
بن يوسف البتاع بتاريخ العشرين من ذى القعدة سنة اثنى اربعين
وخمسائة

For its owner 'Ali ibn Yūsuf ibn Uthmān al-Hājī, made by 'Umar ibn al-Faḍl ibn Yūsuf *al-bayyā'*, dated on the 20th *dhū al-qa'dah* of the year 542.

This date (April 2, A.D. 1148) may contradict the assumption made above that the inscription was first put in form of a drawing on the surface of the Qalamdan, smoothed after casting and then elaborated on artistically. From the following it will become clear, however, that this date indicates when the Qalamdan was to have been finished, not the date of actual completion.

The inscription needs some explanation. The reconstruction of the missing word *bin*, in the name of the person who made the Qalamdan, is confirmed by its repetition on the second inscription on the

⁷ The exact reading of this inscription at that time made under the guidance of Academician I. Iu. Krachkovski.

Qalamdan. In the first one, the name is accompanied by a word which we read as *al-bayyā'*. It is written unevenly so that its initial sign is removed from its main part; thus one is inclined involuntarily to seek for one more ligature between them. However, the ornament found in the presumed place of the sign cannot be considered a letter. At best one could admit that behind the final 'ayn there should have been the sign *yā'* turned, as it is often found, to the right; then the word with such an ending could have been the *nisbah* of the master. However the thicker nature of the ornament itself in this spot excluded this possibility. In addition this ornament is still thinner than the parts of the inscriptions and, unlike them, is not at all fitted for inlays. Thus, there is nothing for us but to admit that the examined word actually has the form *الساع* which cannot be read in any way but *البياع* (*al-bayyā'*). What is this, a nickname, a title, or a name of some profession? And what meaning could it have at that time?⁸

The word *bayyā'* can be found in the *Travels* of Nāsir-i-Khosrow in the description of the bazar of Isfahan:

و دران کوچه پنجاه کاروانسرای نیکو و در هر يك پياعان حجره
داران بسيار نشسته

... and in that street there are fifty beautiful caravanserais and in each (of them) there are sitting many *bayyā'* and shopkeepers.

⁸ For a determination of the word *بياع* which is close to our case, it was necessary to limit ourselves to Persian sources. We considered particularly the time of the making of the Qalamdan and the place of origin which is discussed below.

⁹ Ed. Kāwiyāni, p. 138.

In the same uncertain meaning the word *bayyā'* is used in the *Siasset-nāmeḥ* by Nizām al-Mulk in the story about 'Aḏūd al-dawlah and the chief judge of Baghdad. Having called the judge, the prince tells him that he is going to hand over all his precious things for him to keep and to give to his children after his death. Aḏūd al-dawlah, having mentioned the amount set aside for them, says:

... و چندین جامه و عود و عنبر و مشک و کافور در وجه آن نهاده
ام و در آنم که زمان تا زمان بیاعان در آیند و بفروشند

... and so much clothes, aloe, ambergris, musk and camphor I have prepared for that purpose and I am kept busy for a certain time by *bayyā'* who are coming and selling them...¹⁰

A more specific meaning of the word *bayyā'* can be derived from the geographical work of Ibn-Balkhi, the *Fars-nameḥ*, which was written at the beginning of the 12th century. In the description of Kazerun there is the following information:

... و سرای امیر را عادت چنان دفتست کی مایه از دیوان اطلاق
کنند تا جولا هگان جامه از بهر دیوان بافند و معتمد دیوان ضبط
میکند و بیاعان معتمد باشند کی قیمت عدل برکن نهند و رقم برزنند
و بخر با فروشند و بروزگار متقدم چنان بودی کی بیاعان باره
کازرونی در بستندی و غربا بیامدندی و همچنان در بسته بخريدندی
بی آنک بگشادندی از آنک در بیاعان اعتماد داشتندی و بهر شهر
کی بريدندی و خط بیاع بدان عرض کردند بسود باز خریدندی
ناگشاده...¹¹

... and at the Emir's court, the custom was introduced that in the *divān* materials were given for the weavers to weave cloth for the *divān* and then taken by a trusted

¹⁰ *Publication de l'Ecole des Langues Orientales Vivantes*, 3rd series, vol. 7, Paris (1897), p. 75.

personage. Also trusted *bayyā'*, existed who set the right price for those goods, made marks on them and sold them to strangers. But in former times the *bayyā'* packed the products of Kazerun in bales and the strangers came and bought the goods in that form, without opening them since they relied upon the *bayyā'*. And in every town where they would deliver the goods they would present the marks of the *bayyā'* and sell them for profit, without opening them...¹¹

A slightly different meaning of the word *bayyā'* is found in a story which is included in the collection *Life and Speeches of the Shaykh Abu Sa'id from Meyheneh*.¹² This story was written, according to the judgement of its publisher, Professor V. A. Zhukovskii, in the middle or in the second half of the 12th century by one of the old man's descendants:

از حسن مؤدب نقل کنند که شیخ را در نساہور معبئی بود نام او ابو عمرو (حسکوہ؟) بیاع شهر بود و ہر چہ شیخ اشارت کردی وی راست کردی یک رود ہفت بار مرا نزد وی فرستادہ بود بہر شغلی وی کردہ بود شبانگاہ کی آفتاب فرو می رفت گفت نزد استاد ابو عمرو رو و گلاب و عود و کافور آور رفتم و شرم داشتم کہ نزد وی شدی و او در دوکان می بست چشمش بر من افتاد گفت یا حسن چیست گفتم استاد شرم دارم از بسیاری کی امروز آمدہ ام گفت شیخ چیزی فرمودست من غلام فرمان شیخم گفتم عود و گلاب و کافور می خواہد در دوکان بکشاد و بداد و مرا گفت چون بدین مجقرات شرم می آید کہ پیش من آئی فردا بہزار دینار کاروان سرای و گرمابہ گرد ستانم تا تو از آنجا خرج می کنی و آنچ معظم تر باشد من می دہم

People say from the words of Ḥasan Mu'addib that a shaykh in Nishapur had an admirer called Abū Amrū (?). He was the *bayyā'* of the town and he would carry out anything the shaykh would command. Once, the shaykh sent me to him seven times for various things and he did all of them. At sunset the shaykh told me: "Go to *ustādh Abū Amrū* and bring some rose water, aloe and camphor." I went but I felt ashamed that I had to go to him (again); (at that time) he was just closing his shop. He noticed me and asked: "Oh, Ḥasan what is it?" I answered, "Ustādh, I am ashamed that I have come so many times today." He asked, "Did the shaykh order something? I am the servant of his order." I answered, "The shaykh wants aloe, rose water and camphor." Abū Amrū opened the door of the shop, gave me (what was needed) and told me: "If you are ashamed to come to me because of such trifles, then I'll pawn tomorrow the caravanserai and the bath house¹³ for a thousand dinars, for you to spend this amount on current expenses, and I'll pay everything more important..."

The works from which these excerpts come were written in different places and

¹¹ *Gibb Memorial New Series*, vol. I, London-Leyden, 1921, pp. 145-6.

¹² V. A. Zhukovskii, *The Life and Speeches of the Shaykh Abu Sa'id from Meyheneh*. (Persian Text), Saint Petersburg, 1899, pp. 39-40.

¹³ This is the direct meaning of the expression کاروانسرای و گرمابہ فردا بہزار دینار which leads to the conclusion that specific caravanserais and baths were used by the Sūfi community. The point is not important for our purposes, however.

are separated in time by intervals of 50–100 years. That explains why in each of them the word *bayyā'* had a different meaning. It is necessary to remember, however, that all these sources refer to a period of rapid growth of trade and industry. The irregularity of the economic development connected with the state of trade routes and with political events could contribute to the establishment of different concrete meanings for words in common usage in trade and industry. Consequently it is difficult for us to establish a general meaning of the word *bayyā'* which would fully fit each passage.

Thus, the first one gives us the impression that the word *bayyā'* meant people who took part in trade and whose business was done in the caravanserais but who did not possess their own trade enterprises. In the *Siaset-nameh* story the *bayyā'* acted as wholesalers of goods and, in a sense, as brokers or commissioners. These people were trusted so much that their service could be used by the ruler himself, if necessary. On the basis of the extract from the *Fars-nameh*, *bayyā'* were persons enjoying a high and wide confidence. They were brought in for appraisal, for estimating quality, and for trading all the goods belonging to the ruler's court; thus they were actually considered experts or trade supervisors. Nāṣir-i-Khosrow also understood the word to mean appraisers or brokers who were attending to the trade caravans in caravanserais. There is every indication to believe that they were the representatives of a free profession rather than officials. From the *Fars-nameh* which refers to a relatively earlier period, we can conclude that the duties of the *bayyā'* included not only the appraisal of goods but also cer-

tifying their quality, verifying that they met existing standards, and finally setting their personal seal on them.

In the story of the collection *Life and Speeches of the Shaykh Abū Sa'īd of Mayheneh*, the appearance of the *bayyā'* takes a double meaning. On the one hand Abū-Amrū is a shopkeeper and perfumer (*ʿaṭ-ṭār*), although he is not called that in the story. On the other hand, this pillar of society is charitable to the Sūfi community by putting at its disposal a thousand dinars as a mortgage on a caravanseraï and on a bath; a mortgage which would actually prove to be fictitious. The narrator doesn't call Abū-Amrū just *bayyā'*; the expression *bayyā'-i shahr būd* ("he was the *bayyā'* of the town") indicates that there was just one *bayyā'* in Nishapur. Unfortunately the story does not explain what his functions were or whether the word means only a merchant adviser.

If we cannot establish the exact and definitive meaning of the word on the basis of the cited passages, then at least we can make some tentative conclusion. The word *bayyā'* was not a nickname but the actual name for people who were given certain functions in the trade life of the town. Hence, the persons thus called had to belong to the merchant class. *Bayyā'* enjoyed respect and wide confidence, not only in mercantile circles but also in higher ones, and probably even beyond the town and area of their activity.

Let us return to our inscription. There are two names mentioned in it — the owner of the Qalamdan and its maker — both constructed on the same principle. They consist of the proper noun (or personal name *'alam*) his patronymic, his father's patronymic, and the final word which is

used with the definite article. In the first name this word is *al-hājj* which is a title of honour for a man who made the pilgrimage to Mecca. This word has something in common with the final word of the maker's name *al-bayyā'*. In both names the *nisbah* is missing which apparently had less importance than the final words. The *nisbah*, as we know, was common in the names of persons in most social classes and often was more popular than the proper name of the person. Among the personal names of the representatives of different generations, some which refer to the owner's kin and others to the family of the maker of the Qalamdan, there is nothing which could prove their belonging to different social classes. Moreover, there is a possibility that there was a relationship of uncle to nephew between the owner of the Qalamdan and its maker. If so, the mentioned personal names would go into not three but four successive generations when the eldest in the family would be Uthmān and the youngest one 'Umar. Even if such a relationship did not exist, these names prove the absence of Shi'ite and Isma'ili influence in the environment where the Qalamdan was created and kept. At the same time, however, the relationship could very likely explain the absence of the *nisbah* in the names of the owner and of the maker of the Qalamdan. Since it would be the same for both names, it was unnecessary and out of place.

In connection with the word *al-bayyā'* we may note that it appears on the Qalamdan in the way (that is with the definite article and immediately after the name) in which professional titles of craftsmen appear on their works. One example is the word *al-naqqāsh* (decorator) which we shall discuss below.

Therefore we can assume that the word *al-bayyā'* is a title of the person after whose name it stands and proves his belonging to the merchant class.¹⁴ This assumption can lead to another one which is that the Qalamdan was not made by a professional maker of bronze for a private order. It apparently represents the work of an amateur who, having knowledge of the techniques of making inlaid bronzes, made the Qalamdan to present to an honorable and perhaps closely related man. In accordance with this theory we should assume also that the owner of the Qalamdan belonged to the merchant class.

The inscription on the Qalamdan was not the only one to suggest that in the middle of the century articles made by amateurs existed next to the products of professional masters. We are led to the same conclusion by the inscription on the remarkable bronze aquamanile also from the Hermitage which represents a cow (zebu) who, while feeding her calf, has a leopard on her back biting her hump (fig. 3).

A communication by M. M. Diakonov on this object was read at the Third International Congress on the Art and Archaeology of Iran (Leningrad, 1935) and included in its proceedings.¹⁶ The same author also discussed the object in a popular article.¹⁷ Both the lecture and the article are based upon an analysis of the inscriptions

¹⁴ Even if it is tempting to compare the word *al-bayyā'* to the medieval western consonant word *bailly*, its etymology does not allow it.

¹⁶ *Proceedings of the III International Congress of Iranian Art and Archaeology*, Moscow, 1938, pp. 45-51.

¹⁷ M. M. Diakonov, *The Water-carrier of Shirvan dated in 1206*, *The Monuments of the Epoch of Rustaveli*, Leningrad, 1938, pp. 247-54.

on the aquamanile. Unfortunately, the author admitted to some inaccuracies, one of which may throw light upon a very essential feature. To understand this properly we have to examine the inscription (fig. 4).

The date written separately on both sides of the cow's muzzle were read correctly (*Muharram* 603/August 8, 1206–July 27, 1207).

The main inscription begins on the withers of the cow and then proceeds to the front part of the neck where it is extended to the left side first and then to the right one:

ابن گاو و گوساله و شیر هر سه یک باره ریخته شد ست بتوفیق
یزدان دادگر یروردگار بعمل روز به بن افریدون [بن] برزین
برکه لصاحبه شاه برزین بن افریدون بن [بر] زین عمل علی بن
محمد بن ابو القاسم النقاش

The grandfather's name, which follows, in the name of the owner, behind his patronymic, is reconstructed by M. M. Diakonov in the form of [بن] یزاد. Nevertheless, both in the photograph and in the drainage one can see first that over the last sign of the name افریدون is put not *bar* but *bin*; and second that more to the left, where damage was done (probably by a cutting object), what is left of the writing cannot be reduced to one sign. It clearly belongs to two different signs, such as the combination ۛ. This combination with the three following signs must be read by analogy with the grandfather's name mentioned in the inscription above as [بن] زین. So far, if we assume that it is the same person mentioned twice in the name of his son Afridun and if it is in the second case preceded by the usual *bin* (son), we have the right to reconstruct it also in the first case in the

name *barzīn*, which was not done by M. M. Diakonov. This reconstruction does not change the meaning and cannot be reflected in the translation, but it does fill an obvious omission in the inscription.

In contrast to what we filled in, however, we do not think it possible to make a rearrangement of a letter at the end of the inscription, as M. M. Diakonov did, in the sense that a correct name *Abū al-Qāsim* should be added. Firmly opposed to this idea is the fact that a forced dismemberment of the irregular ligature ۛ would be necessary. The adding of the *alif* of this ligature to the preceding word and its transformation into *ibn* can by no means be accepted, especially since this word in all the four preceding cases has the form *bin*. The wrong way of writing *Abū al-Qāsim* can be explained very simply. In compound names beginning with the word *Abū*, this word very often accepts, particularly in actual speech, a contracted form *bū*. This form is also used in this case, however, contrary to the rule with the definite article. Keeping this name in our transcription in its original form, we give it a more correct rendering.

Our last observation refers to the word which M. M. Diakonov accepted as *ta'amāl*, translating it as "order" and which we now understand as a combination of a *maṣdar* with a preposition in this form, *bi'amāl*, meaning "the work of," "the effort of," or "the endeavor of."¹⁸ This does not exclude,

¹⁸ This expression is used with the same meaning by the artist who drew the manuscript *Bustān* for Nāsir-shāh Khaljī who reigned in 720/1320. (See R. Ettinghausen, *Review of Indian Painting: Fifteen Color Plates* by W. G. Archer, *Ars Orientalis*, vol. 4, 1961, p. 398.)

however, the possibility of seeing in this word some verbal form *ta'ammala* such as "he has labored," "he has tried," "he has worked," or what is less probable, the corresponding *mašdar*, *ta'ammul*, "laboring," "preservering," or "endeavoring."

M. M. Diakonov justified his reading of the word *ta'amīl* by the presence of a sort of cog which was, in his opinion, clearly seen before the last sign of the word. If so, then such a cog could actually be seen only in the sign *yā*. As a matter of fact it is not too difficult to prove by the photograph that there is no such cog in the word. In its place there is just a sloping ligature whose end is raised and connected with the right end of the preceding sign *mīm* which is pictured in the form of a loop and situated below the level of a fictitious line (fig. 5). Disregarding what was written, the form *ta'amīl* is not common at all in the practice of the bronze or any other artistic creation. Therefore, the reading of that word suggested by M. M. Diakonov does not seem to be convincing although the attempt to give the word that meaning can be justified from the point of view of the inscription on the whole. However, using that same point of view, our interpretation is clearly more justified.

Academician I. A. Orbeli objected to M. M. Diakonov's explanation of the examined word at that time. His suggestion was to consider the word mentioned behind it as the name of a person who was a participant in the work, that is one who modelled and prepared the ceramic mold, who cast the whole group and handed the finished cast to the master-decorator for the artistic processing.¹⁹ Any of these possible readings of the examined word lead to the same understanding of the inscription. On

the whole the following meaning can be given to it:

This cow, calf and lion were all cast at the same time with the help of God — the All-just judge and the Nourisher — by the labor of Ruzbeh ibn Abridūn ibn Burzīn. Prosperity to its owner Shāh-Burzīn ibn Afridūn ibn Burzīn. Made by 'Alī ibn Muḥammed ibn of Abū al Qāsim, decorator.

In that way, our basic difference from M. M. Diakonov is in considering the first of the persons mentioned in the inscription, Ruzbeh, as a participant in the work who finished the modelling and casting rather than a customer on whose order the aquamanile was made.

Making such a difficult cast group meant to serve as a aquamanile was a difficult technical task. A man who managed to complete the work well had reasons enough to boast. Thus acted Ruzbeh, having announced in the beginning that all three figures forming the group were cast in the same process. Naturally, this announcement is followed immediately by the name of the person who accomplished the work. If, according to M. M. Diakonov, the name following that announcement belonged to the customer, then the question arises as to why a customer would boast of a well accomplished work.

M. M. Diakonov does not consider or resolve this question. He simply rejects Ruzbeh's part in the work, insisting that

¹⁹ Unfortunately, Academician I. A. Orbeli did not succeed in writing down his ideas about this aquamanile. He was concerned not only about the circumstances under which it was made, but also its place of origin.

he was only a customer and ascribing all the work fully to ‘Ali son of Muḥammad, son of Abū al-Qāsim, who is mentioned at the end of the inscription. However, this Ali calls himself “decorator,” which determines not only his profession but also his part of the work on the article. The concentration of all the steps in the making of an artistic bronze in the hands of one master would be an anachronism at that time. At the beginning of this article we talked about the establishment of the distribution of labor according to the standard shapes of vessels towards the middle of the 12th century. This division of labor is proved by the inscriptions on the objects. Particularly important for us is an inscription on the border of the Kettle of Herat from the Hermitage (559/1163) mentioned also at the beginning of this article. We cite only the first half of that inscription (*fig. 6*):

فرمودن ابن خدمت²⁰ عبد الرحمن بن عبد الله الرشيدى ضرب محمد
بن عبد الواحد عمل حاجب مسعود بن احمد النقاش هراة²¹

This work as ordered by ‘Abd al-Rahmān ibn ‘Abdallāh al-Rashīdī, cast (beaten?) by Muhammed ibn ‘Abd al-Wāhid, and made by ḥājib Mas‘ūd ibn Aḥmad, the decorator from Herat.²²

From this inscription we learn that in the town of Herat, one of the most important centers of artistic bronze work,

about 43 years before the appearance of the aquamanile, the indication “order for making” was expressed in Persian words “order to accomplish a work.” Naturally, that expression is official and respectful; however, this fact does not deprive it of the possibility of serving as a proof that at that time, in the territory of Iran, not only a Persian but also a wide-spread Arabic expression or term existed for the notion of “order.” However, a special expression existed for another closely related idea. As has been noted at the beginning of this article, the Arabic verbal form ‘*amala* (made) not only applied to bronze makers and other craftsmen in Iran but even to a greater degree to the craftsmen who artistically decorated these wares. In this sense it is used also in the inscription of the Kettle of Herat, determining that part of work which was done by a professional master calling himself “decorator” and, in this case even, “the decorator of Herat.”

In addition to this, there was one more kind of word in the inscription which is not found anywhere else. It is also an Arabic word apparently in the same grammatical form as ‘*amal*, but this time it is *ḍaraba*. This verb belongs to a number of verbs with a wide range of meanings; the main ones are “beaten,” “whetted,” or “minted.” Not having the opportunity to establish its exact meaning in our case, we still have the right to assume that the work indicated by this verb preceded the artistic decoration. This succession is kept also in the inscription, and it refers to the processing of the mold for the final product. This can refer either to the minting of the cast or to the making of the handles and attaching them to the vessel, for the handles had an intricate profile with relief designs and hooks

²⁰ N. I. Vesselovskī accepted this decorative figure as part of the inscription and read it خدمت²⁰ See Vesselovskii, *op. cit.*, p. 6.

²¹ In the original the first cog of the final *shīn* is lengthened to the height of the next *alif*.

²² In both cases the regular translation is a noun followed by a name in the genitive; i.e., “Ordered... ‘Abd al-Rahmān; casting... by Muḥammad.”

for hanging. In this case it is not so important to know the concrete meaning of this verb as to have a proof about the existence of a division of labor between the makers of the vessel and the artisans who decorated it.

There are also other proofs for this division of labor with reference to the area of Herat and to the time span between the Kettle and the aquamanile. We have two examples of masters leaving their names: one on a bronze jug made between the years 1181-82 and kept in the Museum of Georgia;²³ and the other one on the second Kettle of Herat (not yet published) in the Hermitage.²⁴ Both masters provide their work with the expression '*amila naqsh* (made the ornaments). It is not out of place to notice here that in the signatures the combinations of the verb '*amal* do not mean "the shaping" of the object.

With the presence of such facts it should be possible to ascribe all work on the aquamanile to one person with the only stipulation that the object was made in one of the economically less developed regions of the time. That is what M. M. Diakonov is doing by suggesting such regions as Tabaristan, Daylam and Shirvan, preferring however the latter. One of his basic arguments are the names mentioned in the inscription on the aquamanile, the first two of which M. M. Diakonov sees as representatives of a family of feudal nobility and the third one as a representative of artisanal circles.

²³ L. T. Giuzalian, *The Bronze Jug of 1182, The Monuments of the Epoch of Ruztaveli*, Leningrad, 1939, pp. 227-236.

²⁴ Meyer, *op. cit.*, p. 71. This name (The Second Bronze Kettle of Herat) will be justified in a special article devoted to it.

All this seems to be probable and attractive and it changes nothing in the fact that the first person mentioned in the inscription, Ruzbeh, is transformed from a customer to a maker. In fact, instances where persons of noble origin spent their leisure on some occupation unusual for their social class are quite well known.

An understanding of the inscriptions in the way it was explained above was suggested to M. M. Diakonov by I. A. Orbeli who used an example from the history of Armenia where a person from an influential family, as seen in an inscription made by him in 1276, states that he built a palace for himself, planned an adjacent orchard and planted it alone "by his own mind, without a master."²⁵

The profession of architect was not scorned by Mas'ūd of Ghazni (first half of the 11th century). Bayhaqi, the author of a chronicle of his reign, proves that this ruler projected several buildings and particularly a palace called by him *Kōshk-i Mas'ūdi*:

... و چنین کوشک نشان ندهند هیچ جای و هیچ پادشاه چنین بنا
نرمود و همه بدانش و هندسه خویش ساخت و خطها کشید بدست
عالی خویش که در چنین ادوات خصوصاً در هندسه آیتی بود...²⁶

...And nowhere a likely (garden palace) is shown and no *padishāh* commanded to build a similar construction and he (*Mas'ūd*) did everything thanks to his knowledge and calculations, and by his noble hand he made the plans, since he was outstandingly skilled in the art of

²⁵ See N. I. a. Marr, *Ani*, Leningrad, 1934, p. 42.

²⁶ *Tarikh Bayhaqi*, Tehran, 1324, p. 499.

handling the instruments and particularly in measuring...

In the light of the presented facts it would not be amazing if a person from an old feudal family, as Ruzbeh could be, would occupy himself, purely for amateurish interests or by inclination to art, by modelling and casting artistic bronze vessels or original shapes which was the first and most responsible part of the process. It would appear more proper then for this person to dedicate his particularly difficult and accomplished work to a closely related person, most likely his own brother.

There is, however, one circumstance which, without denying the possibilities suggested so far, provides the ground for another explanation of conditions under which the aquamanile could have been created.

The Hermitage owns the base of a bronze candlestick whose shape is typical for the 12th–13th centuries, possibly not only for Iran but for such different areas as Central Asia and the Transcaucasia where similar ornaments were discovered in excavations.²⁷ Some details of the candlestick base are inlaid with silver and red copper and represent a shape complicated by spoonlike hollows (fig. 7). Above these hollows there is a circular inscription (fig. 8) which includes this short wish: بالين والبركة ("For happiness and prosperity"); and a note: بن مرزبان القايني عمل يابددار ("made by Pāydār ibn Marzbān, al-Qāyini," i.e., a native of Qāyin). If we approach the name of the person mentioned in that note in the same way we approach names in the inscription

on the aquamanile, then we have to ascribe all the artistic work on the candlestick including its missing parts to some person from an old feudal family since *pāydār* and *marzbān* are old Iranian words. The second one of them was used as a personal name in Iran since the time of Sasanians.²⁸

However, the object itself does not provide us with direct grounds for such an assumption. A certain tact and a feeling of measure distinguishes it from other contemporary bronze wares; a certain delicacy can be observed in the choice of artistic motives of decoration; and, finally, the work on the whole is remarkable for the care in which it was executed. Nonetheless, there are no reasons to assume here a manifestation of some particular aristocratic qualities which could only have been characteristic of a representative of an old feudal family and not of a good master craftsman.

The name of Pāydār, son of Marzbān, is not an exceptional one. On several bronze wares executed close to the time of the aquamanile, names are mentioned: one is purely Iranian and ancient; the second one is half Iranian and half Moslem; and the third one a *nisbah*; and if it does not contain a proper name of the Iranian origin, it has no Moslem personal name either.²⁹

On exhibition in the Museum of Moslem Art in Cairo, is a semicircular box (dated approximately 600/1200) with an inscription stating that it was made (*amal*) by Nushirvān, son of Muhammad. Two cylindrical inkwells dated at the beginning of the 12th–13th centuries and made (*amal*) by Shāh-Malik belong to two pri-

²⁷ Lastly in the castle of Anberd (Armenia) in 1936. See *Monuments of the Epoch of Rustaveli*, p. 166.

²⁸ F. Justi, *Iranisches Namenbuch*, Marburg, 1895, p. 197.

²⁹ Meyer, *op. cit.*, pp. 77, 82–83.

vate collections: Köffler in Lucerne and Carnap in Cairo. Finally, in the Freer Gallery of Art, a pen-case is found which was made ('amal) in 607/1210-11 for a vizier of Khorezm, shāh Muḥammad with a Muslim name by the decorator (*al-naqqāsh*), Shadhi.

Thus, some members of this profession used old Iranian names next to the Moslem names which were mostly used by medieval masters of bronze work and which were apparently connected with the guild organization of the work and with religious brotherhoods (*akhi*). This practice was particularly characteristic for the late 12th and early 13th centuries.

If the above-mentioned Iranian names of masters of bronze work were followed by their *nisbabs*, perhaps an explanation for that phenomenon could be found. In any case, it can be explained by the example of the inscription on the base of the bronze candlestick located in the Hermitage.

Paydār, son of Marzbān, was from Qāyin, the administrative center of the mountainous area Kuhistan to the south of Khorasan. This area borders a desert and by the 10th century was exposed to a strong process of desiccation and weathering of rocks; thus the wide spaces located between the villages could be used only by nomads. Qāyin was no industrial center and was used only as a crossing point between Khorasan and Kerman. Kuhistan was known for its many mountain castles which was the main reason for its becoming one of the centers of power of the Isma'ili sect in the 11th century.³⁰

³⁰ V. V. Bartold, *Istoriko-Geograficheskij obzor Irana*, St. Petersburg, 1903, pp. 93-94.

Under such conditions it would be groundless to assume that a native from Kuhistan, and particularly from Qāyin, could have had an old Iranian name only if he came from an ancient feudal family. More likely we can suggest that the custom to call persons by old Iranian names and to use old Iranian words for personal names could be observed not only in ancient feudal families, but it was also customary in certain geographical areas, in circles of craftsmen working with bronze, or in separate families in which the profession was inherited.

From this assumption we have to admit that, as Ruzbeh's belonging to some feudal family is not probable, it is not absolutely necessary either, since the possibility is not excluded that Ruzbeh could belong to a family of hereditary masters of bronze casting. At the same time, another possibility is not excluded. A likely custom existing in the circle of masters of bronze work was to exchange the products of each other's labor. On the already mentioned bronze jug in Georgia, which was made in 1181 or 1182 in Herat, the master having completed an ornamental encrustation which was outstanding both artistically and technically said:

If happiness comes to him, he will give the jug to a friend. If a misfortune arises, he will provide it for the enemy.³¹

The conclusion can thus be drawn that even the outstanding technical and artistic qualities of the aquamanile (unfortunately

³¹ See *Monuments from the Epoch of Rustaveli*, p. 231. [The word "provide" is used here for the Russian "pristroit," which in turn translates the Persian *darsāzad*; Ed.]

only slight traces of its living scenes and ornaments inlaid in silver and shaded in black remain) cannot be the absolute proof of its belonging to a feudal environment. Naturally if masters were exchanging their creations as presents, then only the exceptionally outstanding ones, like the jug of Herat which rightfully can be considered a *chef d'œuvre*, were involved.

Returning to our Qalamdan and to the question whether it is, as suggested by the inscription, the work of an amateur, we have to find out if this is confirmed by its technical and artistic qualities.

Although as we have pointed out before, the closed shape of the Qalamdan excluded the opportunity of minting after casting, there were no obstacles for work on its surface. However, the roughly filled cast of the Qalamdan was not manufactured properly and that is the reason for its irregularities. Thus, the height of the Qalamdan is not always the same; the width of its walls fluctuates, depending upon the place, between 1 and 3 mm. The side walls are not completely vertical and each of them distorts the bordered ends of the longitudinal walls in a different way (*fig. 9*).

Further, there are some shortcomings in the final work of the mold; thus, a square opening for pens located in one of the diametrical walls has an unjustifiable sloping position (*fig. 10*, right side). Inside the Qalamdan there are no traces of partitions. This could lead to the conclusion that the writing instruments, which were kept inside, were not supposed to be separated from one another. The Qalamdan is also a little too heavy for its dimensions, although an object which is carried and kept by those who use it should be light. In addition to this, its closed shape with two

openings on opposite ends and different sides is hardly more useful than the open types used at that time. In the open Qalamdars the top side served as a lid and could be entirely removed and the case itself was divided into many parts.

The artistic work on the Qalamdan is not impressive. Even the most simple artistic task, which was the breaking of the decorated planes into divisions, was executed unsatisfactorily. This is not very noticeable on the upper side where the inscriptions filling the ends and the middle draw the attention away from the irregularities of the frame of its inside part. However, the shortcomings are striking on the side walls where the inscription occupies little space (*fig. 9*). Here, even among two or three horizontal lines between the vertical ones, not one horizontal line is straight. Also, the fillings of furrows in the frames of cartouches are uneven. In a relatively small section (*fig. 9*, upper right) the fillings represent an uninterrupted wavy line which thickens like a plant shoot with separately grown leaves. This line is suddenly cut off in most inappropriate places on both ends and is replaced by a design of beads.

This design occupies both the remaining part of the furrow and all the corresponding furrows in the frames of the three other cartouches with the exception of one little cutting where the filling disappears completely (*fig. 9*, lower right). The beads themselves are very uneven and vary in shape and dimension.

The medieval bronze wares of Moslem countries were decorated according to certain rules. One of the most frequent rules was the scheme of lengthened cartouches placed in horizontal direction and regular-

ly cut medallions. These units are either isolated from one another (and in such cases, the ends of the cartouches turned towards the medallions are concave) or they are connected with one another by a closed band-like frame common for all of them. This frame appears to be in motion, at times stretching itself into two parallel lines, at other times accomplishing rounded passages and intersections by which the cartouches and medallions are created. The medallions are created both separately from the cartouches and as a result of their coupling-like links of a chain which, when the chain is not stretched, create round openings between their rounded ends. In the first case the ends of the cartouches are concave and in the second case they appear to be so.

On the side walls of the Qalamdan, a pair of coupled cartouches are shown and in the medallions created between their ends there is a bird. Since the possibility of repeating a similar coupling on either end of the cartouches was excluded (perhaps because of lack of space), a rectangular shape was added to these ends. Then, probably for an appearance of symmetry, the cartouche and medallion are connected together by one band-like frame. In fact these side medallions were made before the cartouches with inscriptions and independently from them. The band-like frames, instead of actually crossing each other, tend each time simply to be contiguous to each other and only a crude line cuts across the band. This is a clear instance of an attempt to give the effect of a type of design without actually making it.

Summing up all these shortcomings in the form and decoration of the Qalamdan,

we can conclude that the person who made the Qalamdan lacked professional skill.

However, outside of the shortcomings, a professional finishing of the work can be seen in some features of the artistic decoration of the Qalamdan. This includes the medallions with the picture of a bird in the middle and on the sides, the plant-like lines creating the background on all sides except the bottom, and, finally, the plant-like border on the bottom (*fig. 11*). The elements which have an auxiliary and secondary part in relation to the inscriptions of the Qalamdan are mostly standard. This is reflected in the fact that while the inscriptions representing the main part of the decoration are inlaid, these other elements are created by stamping and carving. It is very probable that the relatively more successful completion of the standard ornaments can be explained by assuming the use of a stencil. The stencil could have been used even for the inscriptions which would not make them any less important. So we can admit that stencils were used to some extent in the inscription covering the side walls of the Qalamdan (*fig. 10*) and used a great deal in the inscriptions on the upper side. There it can be noticed best in the date. On the other hand, the inscription *naskhi* on the side walls of the Qalamdan does not suggest the use of stencils.

Although the suggestion about the partial use of stencils can provide an explanation for the irregularities in the ornamentation of the Qalamdan, the question remains open. Moreover, it opens up another question: are we right to ascribe all the work on the Qalamdan to Omar, son of Fadl?

It would be well justified to assume that with such distribution of work the

masters, whose names were noted on the creations, referred to themselves only on that part of the artistic work which represented some personal peculiarity or originality. All the rest, which was common and routine and which was mostly done with stencils, was apparently left to apprentices. This could have happened also with the work on the Qalamdan. Then we could ascribe to Umar son of Fadl only the inscriptions on the Qalamdan with their immediate frames where the inlay is used in connection with the inscriptions. The routine part which seems to be stenciled in a skilled way should be taken as the work of a professional but not a master. Unfortunately, we cannot present other significant arguments and grounds for such an explanation applicable not only for the production of artistic bronzewares on the whole but also for our Qalamdan. However, we must notice that the first real reason for discussing this question was the irregularities in the artistic work on the Qalamdan and also the facts that were revealed by the previously examined main inscription. It is our considered judgement that we do not have the evidence to ascribe the casting of the Qalamdan to any one person.

If the question of the distribution of duties in the work on the artistic decoration of bronze wares between the master and apprentices is determined in the way just discussed then the concrete meaning of the Arabic verb form '*amala* (made) can be narrowed to refer to the person who is mentioned immediately after that verb form. This would indicate then a distinctive part of the artistic work which was imagined and completed by a master for that particular item. Masters' signatures on

the objects provide us thus with evidence as to what workshop made which specific parts.

Returning to the question of the makers of the Qalamdan, the aquamanile and the candlestick, we are entitled to the following conclusions. The first one was partly, if not entirely, made by an amateur who belonged to commercial circles. The creating of the latter two works by amateurs descending from privileged feudal families is only assumed but not proven. In any case, the works which are to be ascribed to the amateurs were completed in the way which suggests the tremendous experience and professional skill of their authors.

Let us return to the examination of our Qalamdan. The opposite ends of the Qalamdan (*fig. 10*) are bordered, as on the top, by narrow frames which are more irregular here and united by one common inscription, the background of which consists mostly of a plant-like design. The inscription is divided between the walls unevenly because the major part of one (the right one in the figure) is occupied by the opening for the pens and by the design framing it. When you look at the Qalamdan in its normal position, the word which begins the inscription fills the remaining space on the left; the word is larger than the available space and flows from top to bottom.

The opposite end is covered only by an inscription split into two lines between which there are, on the right, a word put from bottom to top, in the middle, a sign spread horizontally, and on the left, the head of a sign. The end of the latter extends to the extreme bottom of the whole space and encloses either the whole inscription or its last word. It should be men-

tioned that if we take the Qalamdan in our hands with the beginning word of the examined inscription in horizontal position and if we do not change the position of this word and turn the Qalamdan so that it shows us the continuation of the inscription on the other wall, then in the corresponding place of the wall a word appears in the same horizontal position placed to the right in a right angle to the lines. Now it remains only for us to turn the Qalamdan around on its axis from left to right to a 45 degree angle so that the lines of the inscription on this side and also the whole Qalamdan get into normal position. This order of reading which appears to be the most simple and comfortable with the given location of the separate parts of the inscription is confirmed by its contents.

As a rule, the signs in the inscription are inlaid alternately with silver or copper only. However, we also find signs which are inlaid equally with both. We also have two flowers decorated over the beginning word of the inscription which are the only inlaid details of designs, in addition to which they are enlarged in comparison with the others. The sign which extends between the lines on the other side has an unusual appearance. While its horizontal part is wholly inlaid, its vertical part was not even prepared for inlaying. Therefore, although it came out similar to corresponding signs of the main inscription, its original character should be accepted with a certain reservation.

We should also accept with reservation a separate sign standing on the left. At first glance, it looks more than anything else like a *yā'* with the end turned not to the left but to the right. In that case it could

refer only to the last word of the inscription which should be read then not *al-hājj*, but *al-hājji*. Such a reading, however, would not find confirmation in the preceding inscription where this word is read clearly as *al-hājj*. Therefore, a more probable reading of the examined sign would be *mīm* which appears, after a careful examination, more acceptable even graphically. At the same time this proves to be more convincing since being read like this the sign not only gains meaning by itself but gives meaning also to the other separately standing sign. This, also, in a way, justifies the following assumption.

The sign *mīm* means the number 40. Since this number is mentioned also in the date revealed on the top of the Qalamdan, we may assume that it is a part of the repetition of the date here since the same names appearing with the date on the top are mentioned here as well. For a full date numbers 500 and 2 are missing, whose equivalents are the letters *thā'* and *bā'*. To the extent that the sign between letters could be either one, it is possible that it should be read twice, first as the first and then as the last digit of the date. In that case, separately standing signs would repeat the date 542. One should not insist on this hypothesis, but it should be noted that it alone provides an explanation for all the visible signs.

Most of the inlay of the separately standing word *shadīkh* is gone thus revealing the furrows underneath (fig. 12). The likelihood of some prior damage at this spot does exist. The damage which occurred to the Qalamdan when it was discovered is near this word. However, it is difficult to conclude whether or not the word itself was damaged. If the two last

signs originally created a usual ligature *īkh*, then the whole word was preserved. But if those signs were simply put contiguously to each other, then the original one is damaged.

Compared to the other inscription on the Qalamdan this one seems to be more monumental, although by dimensions it is surpassed by the benediction on the top side. The only exception in this sense is made by the beginning word of the inscription which was given bigger dimensions. This inequality in dimensions also corresponds to a dissimilarity in styles. The first word of the inscription was made in Kūfic while all the rest is in *naskhi* with less important traces of Kūfic in details.

On the whole, and without completion of the missing signs, the inscription has the following appearance:

الملك / شيخ (٥) . . . مان بن يوسف بن عثمان الحاج (ث م ب ٤)

The inscription mentions the owner of the Qalamdan, not the one for whom, according to the preceding inscription, the Qalamdan was made. In the first case he was called علي بن يوسف بن عثمان الحاج ('Ali ibn Yūsuf ibn Uthmān al-Ḥājj). Here while the names of father and grandfather and the honorific title remain the same, a part of the second name was preserved in the form of مان (...mān), in addition to the preceding word which can be read as شيخ (*shaykh*). Considering the damaged place we can count on not more than two missing signs in the beginning of the name of the second owner of the Qalamdan. Under such conditions, there are several possible variations of the reconstruction of that name, the most likely one of them would be [عث] مان ([Uth]mān) as a repetition of the grandfather's name.

We can eliminate the assumption that the owner of the Qalamdan could have had two names. If so, both names would probably be presented on the more spacious top side of the Qalamdan and one of them would have been preceded by a combination of signs close to the word *shaykh*. Therefore, one can assume that apparently there are two brothers mentioned in the inscriptions both of whom were using the honorific title of a person who completed the pilgrimage to Mecca. One of them, possibly in addition to this title, was called *shaykh* which means "old man," "dean," or "mentor."

Also, we do not take into consideration the possibility that the inscriptions could have been done in different times. In such a case we would have to admit that either one of the opposite walls of the Qalamdan where its owner is mentioned or the top part with the main inscription were originally left untouched or, in any case, incomplete. This would not tally with the fact that Qalamdans were made as finished objects, inscribed with a name and dated to the exact day of the month.

There is one more possibility left to explain the presence on the Qalamdan of the names of two men who were brothers and separately called owners of the object. Apparently, the Qalamdan did not become the property of one of the presumed brothers for whom it was primarily meant. It remains unclear whether it was the death of the brother or something else which caused the change of the destination of the gift.

The inscription in the opposite walls of the Qalamdan can be read like this: "Property of the *shaykh* (?) mān b. Yūsuf b. Uthmān al-Ḥājj (542 year?)."

As to designs on the side walls (*fig. 9*), which were examined before, the inscription on them is filled by silver and in a style close to cursive *naskh*. It includes verses and repeats twice the name of the maker of the Qalamdan which was only partly preserved. The inscription begins on the wall which seems to be the front one (the top one in the figure), if we follow the orientation by the inscription on the top side of the Qalamdan. There are just four verses; however, they are not placed one by one in the cartouches as should be expected but squeezed in. Thus, the second verse begins right after the first one in the first cartouche, the third one in the second cartouche and the fourth one in the third cartouche. The name of the maker of the Qalamdan follows immediately after the fourth verse.

For convenience the inscription is presented in the commonly accepted way for poetry, its division into cartouches being marked by vertical lines:

بتقدیر ایزد یسندیده ام * امید از همه خلق بیریده ام
نکوا داشت ایزد مرا تا بکم * نکوا داردم بیش تا زنده ام

Our attention is drawn to the word *nekū*, (repeated twice) written with an *alif* at the end. The absence of all decorative signs in this inscription excludes the necessity of assuming that we must deal with a later method of usually using the sign of *alif* to fill empty places created by the inscription. It is true that the word *nekū* in this form is used twice under the same conditions; both times in the beginning of the verses and before two different forms of the verb *dāshdan* which have epigraphically common beginnings. But it is not possible to see an element of decoration in the *alif* at the end of the word *nekū*.

Also, there are no reasons to consider that this case reveals a lack of literacy of the Qalamdan's maker because not one of the examined inscriptions would confirm this.

If this case were unique, we would be limited to guess its explanation. Fortunately, there is an analogous fact in an adjacent field. On a star-shaped lustre tile from the 13th century in the collection of the Berlin Museum, the *alif* is repeated in two consonant but not rhyming words. This refers to two different *rubaiyāt* where they could not be used in their normal form of writing, in the same combination with the sign *wāw* in the expressions روای تو instead of روی تو and آرزوای لب تو instead of آرزوی لب تو.³²

This coincidence cannot be explained as accidental any more. The words *nikū* (in the full form *nīqū*, *rū* and *ārzū* had their historical origin in the so-called *wāw majhūl*, that is the long *ō*, lost from the Persian language but kept in other Iranian languages and particularly in Tajik. The unusual form of writing the initial vowel in the form of و instead of و in those words should be considered the only possible attempt of the transcription of that long *ō* by means of the Arabic alphabet. Between the Qalamdan and the tile there is an interval of not less than 100 years. We hope that new facts stemming from further examination of materials falling within this period will confirm this phenomenon.

Turning to the epigraphic character of the inscription it is not out of place to notice two different tracings under the same conditions of the letter *hā'*, twice turned

³² The tile is reproduced in *Revue des Arts Asiatiques*, t. X, vol. 4, Paris, 1936, pl. 42, 3, N 2.

upward like a wāw (*pesandeh* and *bebarīdeh* in the first line) and once in the usual form with a circle (*zandeh* in the second line). We can point out also the simplified character of the letter *shīn* without cogs (*dāsh*t in the second line).

The lexical structure of the verses is interesting because of the presence of only two Arabic words, *taqdīz* and *khalq*, and of the old form of the name of God, Izad, which ceased to be common in the Persian poetry by that time. The verses are rhymed in the order commonly accepted for *rub‘ayyāt* but they are kept in the *mutakarīb* meter. Their meaning is complete and they should not be considered as the beginning of a larger poetic work. We did not succeed in determining their author. Although the rhyme is verbal, as is usual in the *rub‘ayyāt*, nonetheless the verses could have come from a major poet. Our attention is drawn to the structure of phrases which are almost as simple colloquial speech. Here is a translation:

I was satisfied with Izad’s pre-
determination,
I cut off the hope of all creatures,
Izad regarded me with favor while
I lived,
He will favor me in the future until
I die.

Umar son of Faḍl son of . . .

The name of the person, who was mentioned in the inscription on the top side of the Qalamdan as its maker, is repeated after the verses without any explanation. This raises new doubts. It is not clear what caused this repetition and why the place after the verses was chosen for it. If the first question can be explained by the fact that the name of the owner of the Qalam-

dan (in that case without any reference to a concrete person) is also repeated as we saw on the sides, then our assumption that we are dealing with no ordinary master is correct. He is apparently an amateur who wants to emphasize that he is, according to his social position, on the same level as the owner of the Qalamdan. A repetition of the master’s name is rarely seen on bronze wares, and if the name is in one case shown in a visible place, then in the other cases it is usually put in a very modest space. As an example of this there are two bronze wash-basins, one of which belongs to the Museum of Teheran,³³ and the other one is known under the name of Le Baptistère de Saint Louis.³⁴ On the first one the master’s name is shown in the inscription on a bent side and repeated several times in a restricted form with shallow writing on silver panels inlaid into the ornament.

On the Qalamdan the maker’s name is shown twice in visible places and it does not differ in the character of writing from the inscriptions with which it is combined. Moreover, when it follows immediately the four verses, the latter are confined by four cartouches prepared especially for them and the name. On the other hand, the fact that the maker’s name follows those four verses immediately without any words of explanation could refer to the relationship between the name and the verses which precede it. In this case ‘Umar b. al-Faḍl would have been not merely the personage responsible for the ornamentation of the

³³ A. U. Pope, *Survey of Persian Art*, Oxford-New York, 1938, vol. 4, p. 2497; vol. 6, pl. 1341. The phenomenon of the repetition of the inscription is not observed here.

³⁴ D. S. Rice, *Le Baptistère de St. Louis*, Paris, 1951 and 1955.

Qalamdan, but the author of the poem found on it, whose end should then read:

He will favor me in the future until
I die; I, 'Umar son of Faḍl, son
of . . .

Although this assumption is not absolutely unbelievable, nonetheless with the absence of any proof, it is preferable to stick to the more probable first explanation based upon the supposition that Umar son of Faḍl considered it necessary to repeat facts about himself and his social position.

The poem, which is penetrated by a feeling of piety, contains in itself a faint note of disappointment in humanity. It is unlike those widespread poetic fragments and quatrains which were prevalent at that time, particularly in the following two centuries, and which were usually written on works of art, particularly on ceramics. Insofar as the Qalamdan was a personal object, it should be assumed that even the verses were selected according to the taste of the person to whom it was destined. Let us remember that this person, not taking into consideration the two presumed brothers, used the honorary title of a pilgrim who visited Mecca.

The lower side (fig. 11) is decorated in a much simpler way than the other ones. Primarily, there was only a border with a plant-like pattern cut into it. Later on, the free inner strip was used for two poems, each of which consists of two rhyming verses. Their lines are anonymous and they talk in a figurative way about the pen and the inkwell (*qalam* and *dawāt*). The style of the writing is close to cursive *naskhi*, but the inscription is crude which complicates

solving the question of when it was written. The most probable time seems to be the 14th century, but the end of the 13th century is not excluded.

In the poem on the right side which is written in the *mutakarib* meter every verse is distinguished by having a separate line. The only understandable ones are the second and the fourth verse. The latter one, however, can be only understood with the reconstruction of a lost part which fortunately was not completely rubbed out. In the remaining lines the words can be easily distinguished and read, some of them even with various meanings. However, neither the final reading nor the exact meaning of these lines can be established. If in the first line the reference to the tip of the pen can be found then the author ascribes in some not sufficiently clear manner an erotic character to the relationship of the pen to the inkwell. The same thing is repeated also in the third line, again in insufficiently understandable allegories. Therefore, although the text is complete, not everything is exact and only the full understood places are given in the translation:

(نکر؟ نکى؟ نکن؟) مرغ نوروح روى قلم
دوانست معشوقه و یار او
کمر بسته جوف سکارو کند
هو [یداست احو]ال و اسرار او

. on the pen:
The inkwell—the lover, and the
(pen)—is fallen in love.
Pulling up, he is finishing . . .
Obvious are his deeds and his secrets.

The poem on the left which occupies most of the space is divided into two lines.

The verses in the *ramal* meter are wholly preserved and their reading does not raise any doubts:

دوسر کند کی گنجور خرد آسایند * زان یکی هست دوات و دگری هست
قلم آن یکی پیش خودمند ز دل کواه دهان * وان دگر پیش هنرمند ز سر
کرد قدم

Two dull heads delight the keeper of the treasury of the mind (that is, the head). One of them is—the inkwell and the other one—the pen. The first one made a mouth of its heart before a sensible man. The second one made a foot of its head before a valiant one.

The allegories are based upon the facts that the inkwell does not have any neck or is very low, and that the end of the pen is dull. In that way, both objects are either headless or dull-headed. The inkwell, while giving the ink to the writer, is allegorically opening its mouth confiding the secrets of its heart to the understanding one. The pen, when written with, is lowering its sharpened end (*sar* which means both “end” and “head”) and allegorically bends down in front of a valiant man.

Unlike the poem which is covering the sides of the Qalamdan and which does not refer to it, the two poems on its lower side deal with it directly. However, they do not concern themselves with the Qalamdan as a keeper of writing instruments. Representing mediocre samples of poetry, they hardly belong to some well-known author.

Without saying, it would be useless to look for the cause of the presence of these poems on the Qalamdan. It could have been inspired by a wish of the person who wrote the poems as well as by a wish of a

person to whose literary conception and taste they corresponded. However, we can express a supposition as to why a rather unsuitable place was chosen for their presentation. Perhaps, it was inspired by the attempt to hide from strange eyes the poem on the right whose allegories clearly contain a frivolous element. As to the other poem, it would not be surprising to find it as one of the basic elements of ornamentation on any Qalamdan of Iranian origin from the 13th or 14th centuries.

Where could the Qalamdan have been made? Only if we extend the understanding of “form” to more than its outer contours can the solution to this problem be based upon the form of the Qalamdan. The word “form” also covers the closed structure of the Qalamdan, without any partitions inside but with two openings located on different sides and covered each with its own lid set on a hinge. It was mentioned before that Qalamdans known in literature have a removable upper side and they are divided inside by partitions into various “nests” by size and shape which serve for keeping implements for writing. This concerns both the Qalamdans which were made about the same time as ours and also later ones.³⁵ To seek for parallels in contemporary objects representing a wide variety of shapes did not prove too useful.

Also, the epigraphic character of the inscription cannot help to solve the question about the place of origin of the Qalamdan because it is difficult to find any exact

³⁵ See the list of Qalamdans in G. Wiet, *Objets en cuivre*, Catalogue Général du Musée Arabe du Caire, Cairo, 1932, p. 81; Also see the chronological list of products and masters in Meyer, *op. cit.*, pp. 101–105.

parallel. The mixed character of the two inscriptions representing a combination of two writing styles—*naskhi* and *kufi*—cannot by itself be any reason for judgement since a similar mixture of styles was widespread at that time. But nonetheless, it is in the inscriptions on the Qalamdan that we find clues suggesting answers to the question of origins.

The main fact is the evidence that the literary language of the circles where the Qalamdan was made was Persian, however, with the pronunciation of the long "ō". If this phenomenon could be noticed only on the Qalamdan, we would have to look for the place of its origin in territory covering the major part of central Asia and northeastern Iran. However the same characteristic was discovered on a typical Iranian tile which was not known in central Asia. The tile was used in the central regions of Iran, including the western outskirts of Khorasan, which restricts within its border the search for the origin of the Qalamdan.

The second thing which can be derived from the inscriptions on the Qalamdan for a determination of its origin is the following. If all the bronze objects surrounding the Kettle of Herat (559/1163) and the Jug of Herat (577/1181–82) are brought together, then an easily observed tradition can be noticed. The usual inscriptions of good wishes on them are made both in *kufic* and *naskhi*. Both of them are found either in simple, easily understandable versions or in complicated stylized variations which are difficult to read. However, the mixture of styles is not to be found in a single inscription, although there are usually two or more on one object and each of them differs from the other by style and

its variations. A certain selection of the first five or six words and their order corresponds to each of the styles. This order of words affects at least the first three words. Next to two inscriptions representing a mixture of *naskhi* and *kufic*, and one which is close to *naskhi*, the only blessing inscription on the Qalamdan strictly keeps to the tradition. This circumstance brings the Qalamdan together with the group of objects on which this tradition can be observed. If we consider the epigraphical variety of its inscriptions, then we can speak about some resemblance with the Kettle of Herat.

Another link which draws the Qalamdan close to the same group of objects, and particularly to the Kettle of Herat, is the way in which the channels for the inlays were made. This link would sound much more convincing and would be decisive if the techniques of bronze production were better known and the local peculiarities of each center of production clearly determined.

There is one more detail in the artistic decoration on the Qalamdan which, independently of the others, proves its relationship to the Kettle of Herat and also to other bronze kettles. It is the figure of a one-eyed bird, most often a duck, which is often repeated on these objects, but which at other times represents other varieties of river or marsh birds. This figure is always shown from one side, usually from the left. It is standing on both legs with its head raised or turned back. Its tail is invariably complicated and stylized. First, the tail is raised above the spine and is turned to the back (*figs. 13 and 14*). It is very important to note that, although this image on the Qalamdan is made by techniques of carving and chasing while it is



FIG. 1.—GENERAL VIEW.



FIG. 2.—UPPER SIDE.



FIG. 3.—BRONZE AQUAMANILE OF 603/1206. The State Hermitage.



FIG. 4.—INSCRIPTION ON THE BRONZE
AQUAMANILE.



FIG. 5.—DETAIL OF THE INSCRIPTION
ON THE BRONZE AQUAMANILE.



FIG. 6.—FIRST HALF OF THE INSCRIPTION ON ONE SIDE OF THE BRONZE KETTLE OF HERAT OF 559/1163.
The State Hermitage.



FIG. 7.—BASE OF THE BRONZE CANDLESTICK WITH AN INLAY OF SILVER AND RED COPPER, 12TH-13TH CENTURIES. The State Hermitage.



FIG. 8.—INSCRIPTIONS ON THE BASE OF THE BRONZE CANDLESTICK.

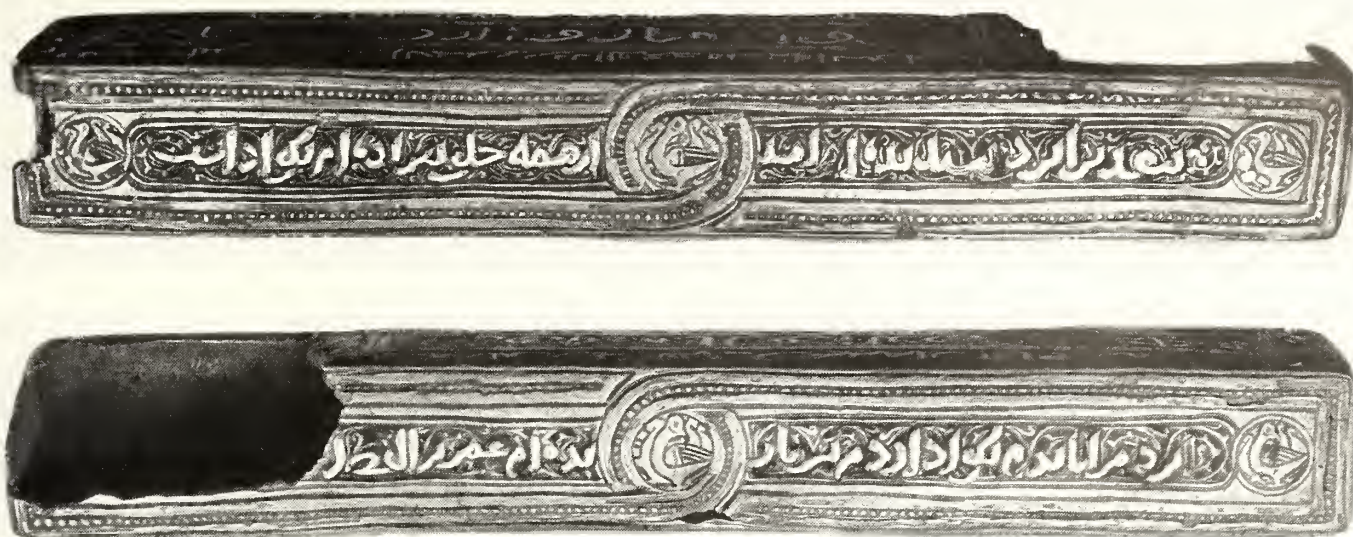


FIG. 9.—SIDE WALLS OF THE QALAMDAN.

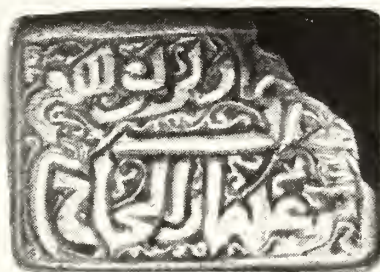


FIG. 10.—SHORT WALLS OF THE QALAMDAN.



FIG. 12.—DETAIL OF THE INSCRIPTION ON ONE OF THE SHORT WALLS OF THE QALAMDAN.

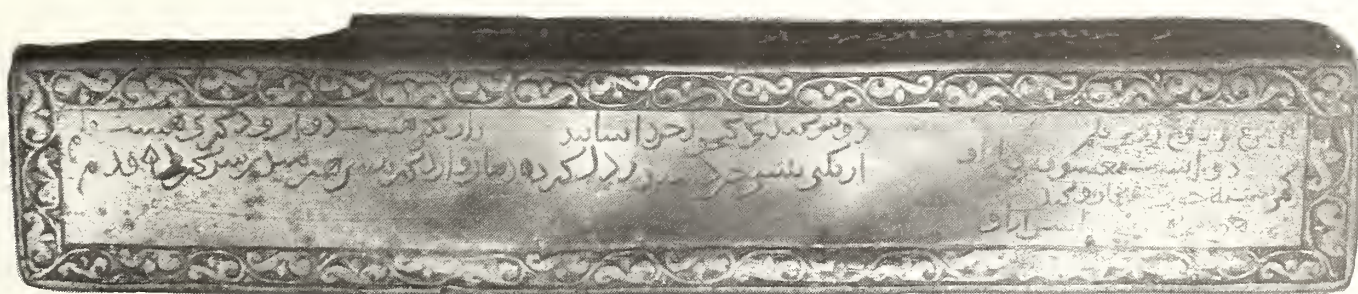


FIG. 11.—LOWER SIDE OF THE QALAMDAN.



FIG. 13.—FRAGMENT OF THE LOWER PART OF THE WALLS OF THE BRONZE KETTLE OF HERAT OF 559/1163.



FIG. 14.—IMAGE ON THE BOTTOM OF A BRONZE KETTLE,
12TH-13TH CENTURIES. The State Hermitage.

inlaid on all other objects where it is found, the *interpretation* of the figure is the same in all cases.

Even if it appears that some of the details of the Qalamdan are closely related to the bronze work of the Herat circle, this fact alone is insufficient to state that Herat is its place of origin. Unfortunately, up to now we know almost nothing about the kind of bronze production which would illustrate the art of historical Khorasan. The Qalamdan itself, even as the product of an amateur, could have been made in a place other than the centers of the examples to which it is supposedly related. To determine the exact point where it was

made would hardly be possible. However, considering the Sunni names mentioned in its inscriptions and also the date, we can reject two regions in the territory of Khorasan which at that time could not have been the place of the origin of the Qalamdan. These are Kuhistan, mentioned above, and also Sebzevar known by their Shi'ite fanatics. However, whether the Qalamdan was made in eastern Khorasan (which seems to be the most probable so far) or in some other place, we are sure that its roots are in the soil of Khorasan.

To all of this it should be added that by its date our Qalamdan belongs among the first ten dated bronze objects of Islamic art.

DIONYSIAC ASPECTS OF KUSHĀN ART

BY MARTHA L. CARTER

Nous y reconnaissons au passage la plupart des figurants habituels du cortège de Bacchus, tout comme s'il les avait oubliés derrière lui, à son retour de l'Inde, dans la lointaine vallée où la tradition plaçait la fameuse Nysa et qui est encore célèbre aujourd'hui pour ses raisins magnifiques.¹

THIS OBSERVATION BY THE GREAT ALFRED Foucher recalls most eloquently a striking and often overlooked aspect of Kushān sculptural imagery. In using the term "dionysiac," I must explain at the outset that it should be understood not simply as that which may be associated with any specific theme from the classical repertoire but rather in a freely improvised generic sense appropriate within the context of the Kushān world. This would include all the varied and curiously bacchanalian scenes of wine drinking, drunken and amorous carousal, harvesting, and pressing of grapes, in addition to the symbols of the grapevine, grape cluster, and wine vessel. Since a pure-

ly Western interpretation of the origin and significance of such motives does not seem adequate to justify their basic *raison d'être*, we must, of necessity, search for it primarily within the diverse elements from which the traditions of Kushān art were created.²

The most spectacular sculptural forms of this imagery occur on Mathurān double-sided relief blocks, of which the so-called Stacy Silenus and Palikhērā block are the best known examples. Both are so familiar, in fact, that it may seem redundant to describe in detail the features which lend them their markedly dionysiac character; yet, despite all that has been written about these extraordinary works, the essential problem of their usage and inherent meaning remains unresolved.

The Stacy Silenus was brought to light in 1836 by Colonel L. R. Stacy who suggested that it might have been the base of an offering vessel or περιφερηριον used for

¹ A. Foucher, *L'art gréco-bouddhique du Gandhāra*, Paris, 1907, vol. 1, p. 246.

² Benjamin Rowland has recently taken to task those scholars who have tended to dismiss the suggestion of classical content or style in the Bacchanalian Groups of Mathurā, and he is undoubtedly correct in pointing to strong elements of Western influence (foreword to J. Rosenfield's *Dynastic Arts of the Kushāns*, Berkeley, 1967, p. x.). Although classical prototypes may be found for Kushān dionysiac imagery in some instances, in others none exist. Seen as a whole, it presents a stylistic and iconographic amalgam, not a patent borrowing; and even when this does occur we may

assume that some transformation of meaning has taken place. The most pertinent iconographic problem is thus not what motives were borrowed from classical sources, but rather why they were selected and for what purposes. Perhaps the best illustration of this selective process of assimilation in late antiquity may be found in the transmutation of pagan into Christian themes. Here the old Life Symbols of the *kantharos* and vine of Dionysos took on new significance to become the Eucharistic chalice and the Vine of Christ. Cf. G. W. Elderkin, *Kantharos*, Princeton, 1928, *The Continuity of Pagan and Christian Eucharistic Symbolism*, pp. 41-47.

wine oblations outside a Greek temple.³ The top of the block displays a hemispherical cavity, approximately 16 inches wide and 8 inches deep, giving the obvious impression that it was meant to be a socket of some sort. The relief on its obverse face Stacy observed to be a drunken Silenus supported by a male and female bacchant, and, although it is much damaged and the heads of the figures all but obliterated, the main protagonist of the scene is indeed a corpulent male with an enormous paunch, seated precariously on a rock or mound with one leg tucked under him and the other hanging down. On either side stands a naked infant in an attitude of playful familiarity and directly above each one an attendant supporting one of the inebriate's outstretched arms. The Silenus wears a drape over his thighs covering his right leg and a chaplet of vine leaves in his hair. Whereas the male attendant on his left wears only a mantle fastened at the neck by a clasp, the female is fully clothed in a long skirt and sleeved tunic reaching to mid-thigh, a form of attire often depicted in Gandhāra sculpture.⁴

On the reverse stand four alternately male and female figures, perhaps more appropriately seen as two couples, against a background of flowering *śoka* trees. Both women wear the same costume as that on the opposite side of the relief, with the addition of a drape across the legs and left arm and jewelry consisting of heavy anklets, bracelets, necklaces, and earrings. The male on the left side of the scene turns on unsteadily crossed legs toward his companion, his left arm around her and his right lifted toward her, as if to offer something which is now unfortunately lost. He wears a loincloth and mantle tied at the

neck. The couple to his right appear to be merely spectators, but the male is distinctive in that he is dressed in a short-sleeved tunic covering the knees over a pair of tight-fitting trousers. Two covered vessels are shown on the ground on either side of the second lady.

The Pālikhērā block was discovered in 1875 by F. S. Growse, who noted its close relationship in form and dimensions to the Stacy block but preferred to believe that both works were intended as pillar bases at the entrance to a shrine, and that their reliefs represented either Balarāma and his family or some unknown Buddhist legend.⁵ The obverse face of this block is essentially the same composition as that of the Stacy block, the only difference being that here the seat of the central personage is clearly a rusticated mound or mountain form. On

³ L. R. Stacy, *Note on the discovery of a relic of Grecian sculpture in Upper India*, *Journal of the Asiatic Society of Bengal*, vol. 5, 1836, pp. 567–570, pl. XXXI. See also F. S. Growse, *A supposed Greek sculpture from Mathurā*, *JASB*, vol. 44, 1875, pls. XII–XIII; J. Burgess, *Ancient Monuments, Temples, and Sculpture of India*, London, 1897, p. 4, pls. 60–61; V. A. Smith, *A History of Fine Art in India and Ceylon*, Oxford, 1911, p. 136, pl. 31; R. Chanda, *The Mathura School of Sculpture*, *Archaeological Survey of India, Annual Reports*, 1922–23, p. 167, pl. 37; J. Ph. Vogel, *La sculpture de Mathurā*, *Ars Asiatica*, vol. 15, Paris, 1930, pp. 54–55, p. 118, pl. LVII, a (Indian Museum, Calcutta, no. M 1. ht. 3' 8").

⁴ For comparable styles, see H. Ingholt, *Gandhāran Art in Pakistan*, New York, 1957, nos. 7, 41, 136, 310, 361; also M. Chandra, *The History of Indian costume from the 1st c. A.D. to the beginning of the 4th c.*, *Journal of the Indian Society of Oriental Art*, vol. 8, 1940, pp. 203–205.

⁵ Growse, *JASB*, vol. 44, p. 214; F. S. Growse, *Mathurā, a District Memoir*, Allahabad, 1883, p. 124, p. 166; A. Cunningham, *Mathurā*, *Archaeological Survey of India, Reports*, vol. 1, 1861–62,

the reverse (*fig. 1*), however, another portly Silenus is seated on the left side holding in his right hand a peculiarly shaped tankard with a handle joined at the lip and foot of the vessel.⁶ To his right appear a naked infant at his knee and a male wearing a mantle who looks over his shoulder. Beside them stands a lady, in a costume much like those described above, whose hair, hanging in loose curls over her shoulders, is bound with a wreath. She holds another vessel, almost identical to the first, as if to offer a fresh cup to her master; and a similarly clothed female behind her holds a large grape cluster. On the opposite side of the relief,

behind the drinker's elbow, stands a male dressed in a long-sleeved coat, trousers, and boots, clutching the stem of another bunch of grapes. By his costume and placement in the scene, he appears to be an Indo-Scythian devotee of the type commonly associated with Kushān Buddhist sculpture.⁷

Even a cursory study of Mathurān imagery of the Kushān era will provide plentiful evidence that the Sileni of the Stacy and Pālikhērā blocks correspond to pot-bellied and often bibulous Yaksha figures, with a cup or goblet attribute, who were intended to represent the Yaksha king Kubera or an intimately related Yaksha type.⁸

p. 242. See also J. Ph. Vogel, *Catalogue of the Archaeological Museum at Mathurā*, Allahabad, 1910, p. 83, pl. 13; Smith, p. 136, fig. 80; Foucher, vol. 2, p. 149, p. 604, fig. 492; Rosenfield, p. 248, fig. 47; V. S. Agrawala, *A Catalogue of Images of Brahmā, Vishṇu, and Śiva in Mathurā art*, Journal of the United Provinces Historical Society, vol. 22, 1949, pp. 194–196. (Mathurā Museum no. C 2, ht. 5¹/₂".)

⁶ The tankard seems to be an unusual goblet-form to which a handle has been added. The decoration consists of schematized rosettes on the body, and a band of lotus ornament around the juncture of the body and the foot. The closest pottery shape to this is a footed vessel with a loop handle found at Taxila and called a censer (J. Marshall, *Taxila*, Cambridge, 1951, vol. 1, p. 286, vol. 2, p. 421, nos. 133–134, vol. 3, pl. 125, nos. 133–134). The decoration recalls that of a schist goblet from Taxila (*Ibid.*, vol. 2, p. 492, nos. 60–61, vol. 3, pl. 141, j and pl. 143, o). Marshall calls this a *ciborium*. It has a heavy stemmed foot but no handle. The decoration consists of lotus-leaves in a band springing upward from the stem, and quatrefoil rosettes between dogtooth borders on the body.

⁷ See Rosenfield, p. 248, fig. 47, a.

⁸ There are, in the Mathurā Museum, numerous images of the Kubera-type, either singly or attended by one or more females. Almost all hold a cup or goblet, while the other attributes vary. See Agrawala, JUPHS, vol. 22, chap. XIX, "Kubera

and Yakshas": no. C 4 (seated Kubera-type holding cup in right hand, sack or mongoose in left, with a female on either side, one of whom holds a pitcher). The group is surmounted by a solid projection and may have been a bowl support, according to Agrawala; no. C 5 (seated Kubera-type holding a sack in left hand and a cup in right into which a female pours liquid from a pitcher); no. C 6, badly broken Kubera-type image which originally held grapes in one hand and a cup in the other (cf. Vogel, *Catalogue*, p. 87); also nos. C 8, C 9, C 10, C 11, C 24, C 25, C 26, C 27, C 28, C 29, KT 55, 138, 240, 242, 244, KT 246, 499, 594, *et. al.* The use of the cup attribute persisted well into Gupta times, if not longer. These images were probably not all specifically Kubera but any of a constellation of royal Yaksha-types, similar in form and function. One such was published by K. D. Bajpai (*A new inscribed image of a Yaksha*, in *India Antiqua*, Leiden, 1947, pp. 7–8). It bears an inscription rendered by the author: "The Mahārāja, Graha Yaksha, called Dharmanitya, makes it known that in his hand is the *prasāda* of the god." The image (Mat. Mus. no. 3232) is that of a seated pot-bellied Yaksha, nimbate and holding a cup and a fruit. From its inscription it is not Kubera, but a Graha (Guhya?) Yaksha named Dharmanitya. If he is a Guhya he would be an attendant of Kubera, lord of the Guhyas (*guhyapati*). Since the fruit and vessel ostensibly belong to Kubera, he appears to hold them on his behalf.

Whether we may see the classicizing influence of a Silenus, Bacchus, or Heracles as stylistic prototype, the fact remains that, in the Mathurān sculptural idiom, the deity most obviously resembling the royal personage of the block reliefs is Kubera, disporting in bacchanalian fashion with his Yaksha entourage on Mt. Kailāsa (represented by his mountain-shaped throne).⁹

It is probable that some of the single Yaksha images of the Kubera type were originally intended to be atlantes used as bowl supports, as Vogel first suggested. These usually show an obese squatting or seated dwarf-like figure with raised arms, although in almost every instance the arms are gone and their pose must be reconstructed from the position of the shoulders.¹⁰ To substantiate his theory, Vogel pointed to representations of bowl-bearing dwarf Yakshas shown on either side of the *toraṇas* of *āyāgapattas* at Amarāvati.¹¹ More recently, Mme. J. E. van Lohuizen-de Leeuw has found two relief panels from Mathurā which show the same form.¹² The use of dwarf Yakshas as decorative archi-

tectural supports is, of course, common at Bhārhut and Sāñchī, but we now have actual evidence that such figures were used, prior to the Kushān era, as bowl supports within early Buddhist establishments. A well-documented example of a Yaksha image of this type was uncovered several years ago in the forecourt of Cave III at Pitalkhorā (datable by its inscription and surroundings to the second century B.C.).¹³ It may be that this grinning gnomelike bearer with raised arms is Saṅkārīn, who, according to the *Mahāmāyūrī*, was the tutelary Yaksha of Pītangalya (ancient Pitalkhorā).¹⁴

To return to the Mathurān relief blocks, it seems reasonable to concur with Vogel's theory that these, too, were used to support large vessels.¹⁵ A massive stone bowl was found at Pālikhērā and would have required a base at least as large as the Pālikhērā block, although Vogel was forced to admit that the two would not have fitted together. Whether stone bowls of this size were made for sculptured supports or simply placed on pediments, as van Lo-

⁹ Cf. Smith, p. 137.

¹⁰ Vogel, *Sculpture de Mathurā*, pp. 54-55. Vogel points to an armless Yaksha figure of the Kubera-type, (pl. XLIX, b. Mat. Mus. no. C 3) and another of similar pose (Mat. Mus. no. C 7). We may also add to this class no. C 4 (*vide*, note 8), and possibly some others.

¹¹ Vogel, *loc. cit.*; see J. Fergusson, *Tree and Serpent Worship*, 2nd. ed., London, 1873, pls. LXXXV-LXXXI; J. Burgess, *The Buddhist Stūpas of Amarāvati and Jaggayyapeṭa*, London, 1887.

¹² J. E. van Lohuizen-de Leeuw, *Two notes on Mathurā sculpture*, in *India Antiqua*, 1947, pp. 234-235, pl. XVII, d (Mat. Mus. no. J 13), and pl. XVII, e (Mat. Mus. no. J 17). Both are on the central panels of *stambhas* and show scenes of a

figure depositing flowers in a bowl borne by a dwarf atlantid base. Another armless Yaksha image which could easily have served this purpose was found at Ahichchattrā and is now in the National Museum, New Delhi. (*Ancient Sculpture of India*, Gov. of India exhibition in U.S.A., 1964-1965, catalogue, Cleveland, 1964, fig. 63.)

¹³ M. N. Deshpande, *Rock-cut caves of Pitalkhorā*, *Ancient India*, vol. 15, 1959, pp. 81-82, pl. LVI. Cave III belongs to the 2nd c. B.C. The inscription is rendered: "made by Kaṇhadāsa, a goldsmith."

¹⁴ *Ibid.*, p. 82; S. Levi, *Le catalogue des Yaksha dans la Mahāmāyūrī*, *Journal Asiatique*, 11 ser., vol. 5, 1915, p. 93, no. 42. This is possibly the Petirgala of Ptolemy (*Geography* vii. 1. 83).

¹⁵ Vogel, *Sculpture de Mathurā*, pp. 54-56.

huizen believes,¹⁶ their carved decoration has much in common with the bacchanalian blocks. The Pālikhērā bowl is cylindrical and flat-bottomed, displaying a band of ornament containing a running vine motive of *śoka* flowers, grapes, and other fruit above a design of schematized lotus petals.¹⁷ The vine issues from the mouth of a squatting Yaksha, encircles the bowl, and returns to be held by the same figure. A second Mathurān stone vase of unknown provenance is rounded in contour and displays a similar lotus petal design below a band of running grape-and-leaf pattern.¹⁸

There can be little doubt that most if not all the works described above were, like the Pitalkhorā Yaksha, intended for some use in or around a Buddhist shrine. The Pālikhērā bowl bears a dedicatory inscription to the Mahāsaṃghika sect,¹⁹ and the head of a Yaksha pedestal figure from Jamna Bagh was donated by one Ayala, son of Imdrasama for the Suvaṇākāravihāra, according to its inscription.²⁰ Vogel maintained that these bowl-and-pedestal forms were meant for pious offerings of the faithful, and that the stone vessels represented the *piṇḍa-pātra* of the Buddha.²¹ Coomaraswamy, however, noted that the stone vases are unlike the Buddha's alms bowl in shape, and that the ornamentation of a *piṇḍa-pātra* was explicitly prohibited by Vinaya rule. He, in turn, suggested that since the Yaksha pedestal figures are connected with the idea of liquid, either water or intoxicating liquor, that they should be interpreted as ablution bowls (*ācamana-kumbhī* or *ācāma-kumbhī*), "...regularly placed at the entrances to Buddhist shrines to hold water for washing the hands and feet of the visiting worshipper."²² We know from their representation on Mathurān

relief panels that some of the single bowl-bearing Yakshas were used to contain flower offerings, but we cannot assume that all related forms were intended as such.²³ The theories of both Vogel and Coomaraswamy are plausible and may be accepted in many instances; yet they do not satisfactorily explain one essential iconographic problem. If the Stacy and Pālikhērā blocks were used as bases for offering bowls or ablution vessels, why do they specifically allude to a Yaksha bacchanale and to wine as the vehicle of their intoxication?

A uniquely Mathurān variation on the theme of drunken Yakshas may be found on a second series of pedestal blocks displaying the motive of an unsteady female supported by a male and a child. This group includes three works, from Narōlī, Mahōlī, and Tusaran Bihār respectively, which follow the models of the Pālikhērā and Stacy blocks, but are more indigenous-

¹⁶ van Lohuizen-de Leeuw, *India Antiqua*, p. 235. The central panel of a *stambha* (pl. VII, f., Mat. Mus. no. J 60) shows two laymen depositing a garland in a large bowl on a pediment. It is impossible to tell whether the bowl has any prominent decorative features.

¹⁷ Vogel, *Sculpture de Mathurā*, p. 54, p. 76, pl. XLVIII, b.

¹⁸ *Ibid.*, pl. XLVIII, a.

¹⁹ See H. Lüders, *Mathurā Inscriptions*, Göttingen, 1961, p. 165 (143 d), insc. no. 125.

²⁰ *Ibid.*, p. 122 (97 a), incs. no. 89.

²¹ Vogel, *Sculpture de Mathurā*, pp. 55-56.

²² A Coomaraswamy, *Yakṣas*, Washington, D.C., 1928, 1931, pt. II, p. 65.

²³ See van Lohuizen-de Leeuw, *India Antiqua*, pp. 234-235. She has proved this by her illustrations of flower offerings in bowls (pl. XVII, d, e, f).

ly Indian in style and subject.²⁴ The best preserved, from Mahōli (*fig. 2*), shows a female of Yakshī or Devatā type seemingly on the verge of collapse with her left knee resting on the ground. Her right arm is held by a male companion and her left is draped limply over the shoulder of a young girl who carries a footed goblet. An older personage of indeterminate sex stands to one side with the left hand on the chest and the right pointing to the mouth in what seems to be a gesture of surprise.²⁵ The opposite side of the block shows a female with an umbrella who turns toward a dancing lady on her left. The dancer appears to be holding something in her left hand which may be the end of a scarf or a tree branch. A male onlooker is represented on the right side of the scene, and another male, now headless, stands behind the first with hands on his shoulder and right arm, and seems to be whispering something to him in confidence.²⁶

In all the pedestal blocks described above, the common motive is that of a drunken reveler whose balance is precariously maintained by a pair of attendants.

²⁴ For the Narōli block, see R. Chanda, *ASIAR*, 1922–23, p. 167, pl. 38, b. For the fragmentary block from Tusaran Bihār, see A. Cunningham, *ASIR*, vol. 11, 1875–78, pp. 64–66, pl. XX. For the Mahōli block see V. S. Agrawala, *A new Bodhisattva and a bacchanalian group from Mathurā*, *JISOA*, vol. 6, 1938, pp. 70–72, pls. XXI–XXII.

²⁵ Agrawala, *JISOA*, 1938, pp. 70–71. Agrawala calls the figure a hermaphrodite harem-attendant, and the gesture, the *vismaya* attitude. I cannot see a family group here or, as Codrington supposes, some scene involving the birth of the Buddha (see *Art of India and Pakistan*, ed. L. Ashton, London, 1947, p. 25) (Mathurā Museum, no. 2800, ht. 3'4").

²⁶ Agrawala, *loc. cit.*, pl. XXII.

This same theme also occurs in relief scene on two stone toilet trays from Gandhāra. One, from an unknown site in Swat, depicts a nude standing male with his arms draped over two robed females, one of whom holds a cup (*fig. 3*).²⁷ The other, found in the Parthian stratum at Sirkap, represents a bearded male in a short robe either striding or dancing while supported by a female on either side.²⁸ Both of these appear to be of pre-Kushān date, and the first in particular recalls the classical theme of the drunken Dionysos or Silenus; yet it would be hasty to conclude that it was intended as such by its creator.

A similar theme may even be found at Sāñchī, although it is usually given a much different interpretation. A panel from the west pillar of the South Gateway of Stūpa I displays a scene designated by Marshall and Foucher as the grief stricken Aśoka mourning the death of the Buddha's sacred tree.²⁹ Here we may see a royal figure supported by two of a group of solicitous court ladies who surround him. One of the group holds an umbrella over him, and another carries a pitcher with an overturned cup as a lid. Garlands hanging on pegs are represented on the right side of the group.³⁰

²⁷ E. Barger and P. Wright, *Excavations in Swat and Explorations in the Oxus Territories of Afghanistan*, *Memoirs of the Archaeological Survey of India*, no. 64, 1941, pl. VIII, 4, no. 21.

²⁸ Marshall, *Taxila*, vol. 1, p. 168, vol. 2, p. 495 no. 66, vol. 3, pl. 144, no. 66. This may not actually represent a dance but may be a clumsy attempt to show movement.

²⁹ J. Marshall and A. Foucher, *Monuments of Sāñchī*, Calcutta, 1940, vol. 1, p. 212, vol. 2, pl. 18b2. See also vol. 3, pl. 79, 27b, for a similar relief from Stupa II.

³⁰ *Ibid.*, vol. 2, pl. 18. Between scenes a 3 and b 3 the border decoration is a running grapevine

Whatever the identity of the royal personage may be, his unsteady posture, together with the festive atmosphere of the scene, could easily evoke the idea of a courtly drinking party.

Even more numerous depictions of dionysiac activities are found in the relief sculpture of Kushān Gandhāra. One such relief (*fig. 4*) now in the Lahore Museum shows four scenes separated by vinestocks with overhanging branches and leaves.³¹ In the center a naked Silenus rides a lion while holding a cup in his right hand, and to his immediate right, a lady in long robes offers his mount an object, probably a bowl to drink from, as seen in representations of Gandhāran *amorini* and their vehicles.³² On their left a vintager tramps grapes in a rectangular vat with a spout, and a second vintager carries in a basket of grapes to be added to the vat. On the opposite side appears an embracing couple, and to the far right a naked *amorino* playfully pulls the mane of the lion he is riding, while a second places a krater of wine before the animal.

A more thorough representation of the

which issues from an elephant's mouth. This clearly shows the presence of this motive in India before the appearance of the Kushān vine scroll.

³¹ Foucher, vol. 1, p. 246, *fig. 129*; Burgess, p. 39, *pl. 144*; Ingholt, p. 157, no. 397; cf. Foucher, vol. 1, p. 251, *fig. 128* (Lahore Mus. no. 1493).

³² See Ingholt, pp. 156–157, no. 296 (a fragmentary relief in the Peshāwar Museum of a cup-bearing *amorino* riding a dragon while another offers the monster a drink from a cup); *ibid.*, p. 177, no. 453 (another work in the Peshāwar Museum of an *amorino* between the forepaws of a seated lion and offering the beast a drink from his cup); also A. Coomaraswamy, *Catalogue of the Indian Collection in the Museum of Fine Arts, Boston*, 1923, no. 488; and Marshall, *Taxila*, vol. 2, p. 496, no. 72, vol. 3, *pl. 144*, no. 72.

manufacture and consumption of wine occurs on a relief in the Peshāwar Museum (*fig. 5*), beginning in the center where two vintagers tramp grapes in a vat with a lion-headed spout from which the juices flow into a shallow vessel, while a third vintager supplies more grapes.³³ To his right, two more workers supervise the filtration of the liquid through a bag suspended on a tripod. In the last scene on the right side of the panel the process reaches its logical conclusion as two revelers pour wine from a large vase into the mouth of a third who lies beneath them. The scene on the far left side, although badly abraded, shows a royal personage wearing a wreath, seated on a throne equipped with a canopy suspended on poles.³⁴ In his left hand he holds a spear, the end of which rests against his right foot. His right hand is raised, either in gesture or to hold an object which is now missing. Standing male attendants on either side of the throne turn toward their master, one gesturing with his right hand and the other holding what may have been a vessel of some type.

In a discussion of this limited length it would be impossible to include more than a few of the better known examples of the drinking or cup-bearing dionysiac figures of Gandhāra sculpture. Perhaps the most remarkable of these is contained in a scene carved between the lion-legs of a statue

³³ Ingholt, pp. 183–184, no. 175.

³⁴ Cf. Marshall, *Taxila*, vol. 2, pp. 112–113, no. 93, vol. 3, p. 217, no. 93. This is a relief scene from the Dharmarājikā Stūpa showing the instigation of the bodhisattva by the gods. The future Buddha is enthroned under a canopy with slender shafts which rise from acanthus capitals of Indo-Corinthian columns, and is obviously a royal baldachin.

base in the Lahore Museum (fig. 6).³⁵ On the left side of the block a bare-chested beardless young man sits holding on his knee a woman whose undraped back is adorned with crossed bands.³⁶ To their right sits a similarly posed couple: the female in the same obviously classicizing back-view and the male, a more mature bearded fellow, who wears vine-leaves in his hair and offers his mistress a drink from his goblet.

In addition to the purely human figures who drink together in Gandhāran reliefs, even tritons and ichthyocentaurs occasionally do likewise.³⁷ One such representation on a triangular panel in the Lahore Museum (fig. 7) shows a male and female ichthyocentaur with tails intertwined holding cups. The male turns toward his mate and tenderly offers her a drink from his vessel, much in the manner of the statue base relief scene.

Although in many instances motives such as these evoke the retinue of Bacchus, together with the accessory piscine monsters of sarcophagus reliefs, one should not be misled by too direct a comparison. The strong influence of Hellenism was obviously at work in Kushān Gandhāra, but

the basic theme of festal drinking, and especially of amorous drinking couples, cannot be said to have been introduced to India as late as the Kushān era.

One of the most frequent motives of the toilet trays from the Śaka-Indo-Parthian period at Sirkap is that of a loving-couple sharing the contents of a cup.³⁸ No obvious counterpart for this occurs in the classical repertoire, but there can be no doubt that it was known in Indian art prior to the Kushān era. One notable example, dated to the second century B.C., may be found on a railing pillar from Amīn (fig. 8), in a traditional depiction of a *mithuna* pair. Each stands with one arm around the other's shoulder, and the male holds a cup as if to offer his companion a drink.³⁹ A number of other drinking couples may be seen among the accessory figures at Sāñchī,⁴⁰ especially in two elaborate

³⁵ See J. Burgess, *Gandhāra Sculpture*, Journal of Indian Art and Industry, vol. 8, 1900, p. 40, pl. 22, 7; Foucher, vol. 1, p. 246, p. 248, fig. 130; Ingholt, p. 157, no. 398. For a relief with a similar couple, see A. von Le Coq, *Die Buddhistische Spätantike*, Berlin, 1922, vol. 1, *Die Plastik*, pl. 16.

³⁶ The crossed bands are of Western Asiatic origin seen on Aphrodite-Atargatis types. See Du Mesnil du Boisson, *Le sautoir d'Atargatis et la chaîne des amulettes*, Leiden, 1947; cf. Marshall, *Taxila*, vol. 2, p. 701, nos. 3-4, vol. 3, pl. 211, nos. 3-41.

³⁷ See Ingholt, pp. 155-156, no. 390 (a triton drinking from a tankard); *ibid.*, p. 155, no. 389 (a male and female ichthyocentaur holding cups).

³⁸ Marshall, *Taxila*, vol. 1, p. 194, vol. 2, p. 495, no. 67, vol. 3, pl. 144, no. 67 (upper compartment of a tray showing half-figures of a male and female holding cups); *ibid.*, vol. 1, p. 194, vol. 2, p. 496, no. 69, vol. 3, pl. 144, no. 69; *ibid.*, vol. 1, p. 182, vol. 2, pp. 495-496, no. 68, vol. 3, pl. 144, no. 68 (a tray with nine compartments and a drinking couple in the center square); *ibid.*, vol. 1, p. 181, vol. 2, p. 496, no. 71, vol. 3, pl. 144, no. 71 (a tray with six radiating compartments and a standing couple with a cup in each segment); *ibid.*, vol. 1, p. 190, vol. 2, p. 496, no. 70, vol. 3, pl. 144, no. 70 (a more Indianizing version of the same motive); also Ingholt, p. 177, no. 486.

³⁹ Coomaraswamy, *Yakṣas*, pt. I, p. 39 and pl. 7, b; G. Combaz, *L'Inde et l'orient classique*, Paris, 1937, vol. 1, p. 179, vol. 2, pl. 123.

⁴⁰ See Sāñchī, vol. 3, pl. 74 1 b (ground balustrade of Stūpa II showing a *mithuna* pair with a vessel); and, pl. 88, b (central panels shows a male with a sword and a female with a cup); also Deshpande, *Ancient India*, 1959, pl. LXI, b; A. Coomaraswamy, *La sculpture de Bodhgayā*, Paris, 1935, pp. 50-51, pls. LIV and XXXIII, 64.

landscape panels from the Northern and Western gateways of Stūpa I. The Northern Gateway relief shows two amorous pairs seated on either side of a waterfall on a rocky hillside.⁴¹ The male of the couple on the right side holds a cup for his lady, who sits on his knee with her arm around his neck (a pose reminiscent of that on the Lahore statue base). Below, in the foreground, two more sets of lovers cavort in a pool with a pair of elephants who have large lotuses in their trunks. In the panel from the Western Gateway, the setting is a paradisaical garden with rich vegetation, scarf and jewelled-ornament producing trees, and a lotus-filled pond.⁴² One of the males appears to be picking a jewelled necklace or girdle from a tree for his mistress. Of the five pairs of lovers in the landscape, two display the identical gesture of the offering of the cup to the coy female.

It is not surprising that this same essentially indigenous theme continued relatively unchanged in the Kushān Mathurā school, where it may be seen among the half-figures of couples on balconies above the elegant Yakshīs of the Bhūtesar railing pillars.⁴³ Another similar motive occurs on a Mathurān relief in the Museum of Ethnology in Munich, which shows a *mithuna* pair, each of whom holds a heavy stemmed goblet in a lovers' toast.⁴⁴ Likewise in Āndhra sculpture, the male of a regally

attired couple, carved on the right side of a bodhisattva group at Kārli, holds a vertically fluted stemmed goblet,⁴⁵ and at Nāgārjunakoṇḍa goblet-bearing couples occur with relative frequency.⁴⁶

The idyllic scenes of the Sāñchī gateways portray an Elysium as seductive as any from Roman Bacchic sarcophagi, but a thoroughly Indian one, replete with lotus-filled pools, jewel producing trees, and playful lovers belonging to the *mithuna* tradition. V. S. Agrawala has suggested that such paradisaical motives may illustrate the fabulous Uttarakuru of Indian legend, described in the *Mahābhārata* as a land of jewel, ornament, and even garment producing trees, where its inhabitants, perfect in dress and appearance, draw sustenance from the nectar of trees.⁴⁷ At Bhārhut and Sāñchī, however, the whole repertoire of jewel and ornament producing vegetation, particularly the lotus-vine, is most closely related to Yakshas or Yaksha vehicles, from whose mouths or navels they often emanate.⁴⁸ Yakshas themselves were also considered to dwell in the paradise of Ālaka, the happy abode of Kubera and his hosts on Mt. Kailāsa. In Kālidāsa's *Megha-*

⁴⁵ *Ibid.*, vol. 2, pl. 167.

⁴⁶ See A. H. Longhurst, *The Buddhist Antiquities of Nāgārjunakoṇḍa*, *MAI*, no. 54, 1938, pl. XXXII, c, pl. XXXIII, b, pl. XXXIII, c, pl. XXXVI, a, pl. XXXVIII, a, pl. XXXVIII, b. R. Rao notes that the proffered cup of wine is common among the Nāgārjunakoṇḍa *mithunas* (*The Art of Nāgārjunakoṇḍa*, Madras, 1956, p. 82).

⁴⁷ V. S. Agrawala, in introduction to A. Cunningham's, *The Stūpa of Bhārhut*, 2nd ed., Varanasi, 1962, p. viii (*Mahābhārata* vi, 6, 208 ff.).

⁴⁸ See *Sāñchī*, vol. 2, pl. 2 (Southern Gateway lintel, Stūpa I); Coomaraswamy, *Yakṣas*, pt. II, pp. 58–60, pl. 12, 1, pl. 13, 1, pl. 29, 5, pl. 30, 2, pl. 34, 1, pl. 34, 2.

⁴¹ *Sāñchī*, vol. 2, pl. 34 b 2 (lower panel on front face of east pillar of Northern Gateway).

⁴² *Ibid.*, vol. 2, pl. 64 c 1 (front face of north pillar of Western Gateway).

⁴³ Vogel, *Sculpture de Mathurā*, pp. 30–31, pp. 100–101, pl. XVIII, b and d, pl. XIX, b and c.

⁴⁴ L. Bachhofer, *Early Indian Sculpture*, New York, 1929, vol. 2, pl. 100 (left panel).

dūta (II, 3), a Yaksha exile wistfully recalls its delightful groves of jewelled trees, wherein Yakshas of Kubera's court drink (with lovely women) the wine of the *kal-pavrikśa* tree to engender passion.

In view of the prominence of Yaksha imagery in early Indian art, it seems probable that the motive of the lovers' toast, or of the offering of the cup to the female among *mithuna* types, should be seen as a theme belonging to the Yakshas. It appears again at Kushān Mathurā in relatively unchanged form, but in Gandhāra the influence of Hellenism has transformed the cup-bearing *mithuna* couples into seeming bacchants of the *thiasos* of Dionysos.

The whole panoply of Gandhāran *amorini*, *sileni*, vintagers, inebriates, and lovers appear to have been intended to be seen as Yakshas. Although the classicizing proclivities of the Gandhāran sculptor eschewed the depiction of a Yaksha producing vegetation from mouth or navel, he seems

to have come as close as possible to it in a jamb relief from the Peshāwar Museum which shows a figure, in a short tunic, who holds the ends of a large vinestock rising above him.⁴⁹ Moreover, the dionysiac Yaksha vintagers, *sileni*, and *mithuna* couples are frequently seen within the Gandhāran inhabited double-vine scroll in a relationship essentially similar to that of earlier Indian Yakshas and the lotus-vine.⁵⁰ Even the tritons and ichthyocentaurs of Gandhāra are obvious Yaksha variants, much like their fish-tailed predecessors on the rail coping at Bodh Gayā who have the same gnome-like faces and big ears as the human-bodied Yakshas, and function in the same ways.⁵¹

Together with the Yakshas, the Nāgas must also be included in Kushān dionysiac imagery. Mathurān Nāgarāja images often display the goblet or *kalaśa* as an attribute,⁵² and in Gandhāra, a relief panel from Kāfir-Kot, now in the British Museum

⁴⁹ J. Marshall, *The Buddhist Art of Gandhāra*, Cambridge, 1960, pp. 58–59, pl. 54, fig. 78.

⁵⁰ See B. Rowland, *The Vine Scroll in Gandhāra*, *Artibus Asiae*, vol. 19, 1956, p. 353–361 and fig. 1. Rowland discusses the very fine Gandhāran inhabited double-vine on a door jamb, now in the Museum of Fine Arts, Boston (no. 39.36). Within the medallions are consecutively a *silenus* drinking from a rhyton, an amorous couple, a vintager with a basket of grapes, another treading grapes with a child on his shoulder, and an archer. Rowland's stylistic comparison with the medaillon vines of the Severid School at Leptis Magna is most appropriate, but we cannot assume that, in the case of the Gandhāran inhabited vine, the figures were introduced haphazardly, as from a copybook. The *silenus* may be equated with a Kubera-type of Yaksha, the vintagers with lesser Yakshas of Gandhāra who tend the vines and produce wine much as their Indian counterparts at Sāñchī literally

produce and inhabit the lotus-vine. Rowland sees the loving-couple as a possible nymph and satyr, but in Gandhāra they are more appropriately a *mithuna*. See also Foucher, vol. 1, p. 155, fig. 127 (a similar medallion-vine frieze from Nutthu); B. Dagens, M. le Berre, D. Schlumberger, *Monuments pré-islamiques d'Afghanistan, Mémoires de la délégation archéologique française en Afghanistan*, vol. 19, 1964, p. 31, nos. 81–83, pl. XX (a frieze in the Kabul Museum).

⁵¹ Coomaraswamy, *Yakṣas*, pt. II, pp. 49–50, pl. 50.

⁵² See Vogel, *Sculpture de Mathurā*, pp. 48–49, p. 114, pl. XLI, a–b (a Nāga image from Chargaon appears to have held a goblet), pl. XLI, c (a Nāga image from Kukargam holding a goblet), pl. XLI, d (a Nāga image of unknown provenance holding a *kalaśa*). See also Agrawala, JUPHS, 1949, chap. XXII, *Nāga Images*, nos. C 14, 211, 439, 966, 1314, 1610, 2665.

(fig. 9) shows a Nāgarāja and his queen seated on a wide throne drinking from cups.⁵³ On their left stand three Nagīs holding vessels, one of which is a rhyton. Three more figures on the opposite side include a Nagī with a goblet, a wineskin bearer pouring wine into a large krater, and a female holding flowers or fruit. Combaz has pointed out a possible precedent for this scene in a balustrade relief from Stūpa I at Sāñchī which shows the adoration of the Bodhi Tree above a seated Nāgarāja surrounded on either side by Nagīs who entertain him with music and share the contents of a shallow bowl.⁵⁴

If the Gandhāran Yakshas are frequently associated with dionysiac activities, their chief, Pāñcika, *alter-ego* of the usually benign Mathurān Kubera, is no less so. A typical Pāñcika image, now in the British Museum (fig. 10), portrays the truculent Yaksha *senāpati* seated between two tiny attendants on a high-backed throne with a spear held diagonally in his left hand.⁵⁵ Above the throne back appear two more small figures. A relief panel on the base shows a reveler in tunic and trousers, possibly nimbate, seated on a recumbent lion while brandishing a cup in his right hand. He is attended by an *amorino* on his left and by a kneeling male and female devotee. The male appears to offer a large spirally wound object which Rosenfield suggests might be a wine jar.⁵⁶ The

general posture and spear attribute of this Pāñcika image, and a number of others, immediately recalls the enthroned royal figure of the Peshāwar dionysiac panel. Ingholt is perhaps justified in noting that this royal figure under a canopy was probably intended to be Pāñcika.⁵⁷ The base of the well-known Pāñcika and Hāritī group from Sahrī-Bahlol displays no less than fourteen playful *amorini*-Yakshas and two *sileni*, one of whom rides a donkey.⁵⁸ Between the royal couple is a small cup-bearing attendant of a type often repeated in other images of the Gandhāran Tutelary Pair.⁵⁹ The persistent inclusion of this figure holding a drinking vessel suggests that this attribute had a significance similar to the vessel held by the Mathurān Kubera.

In other Gandhāran representations, the Tutelary Couple are actually shown equipped with drinking vessels. One such relief, now in the British Museum (fig. 11), shows them seated together on their usual wide throne with a small adorant and the ubiquitous *genius* between them. Both Pāñcika and Hāritī appear to be drinking from the cups which they hold. Another version of the Tutelary Couple, from Takht-i-Bāhi, is of a distinctly different type (fig. 12).⁶⁰ Here, the male, a less corpulent and more youthful beardless figure, wears a short tunic, greaves, and a fillet in his curly hair. The female is attired in a double chiton, with the remains of what probably

⁵³ Foucher, vol. 1, p. 256, fig. 133, b; Marshall, *Buddhist Art*, p. 60, pl. 56, fig. 82. See also the companion panel to this one, showing the Nāgarāja alone on the throne entertained by Nagī musicians (Foucher, vol. 1, p. 256, fig. 133, a; Marshall, *Buddhist Art*, p. 60, pl. 56, fig. 83).

⁵⁴ Combaz, vol. 1, p. 179, vol. 2, pl. 123; *Sāñchī*, vol. 2, pl. 65 a2.

⁵⁵ Foucher, vol. 2, p. 113, fig. 370; Rosenfield, p. 245, fig. 75.

⁵⁶ Rosenfield, p. 245.

⁵⁷ Ingholt, p. 104.

⁵⁸ *Ibid.*, p. 147, no. 342.

⁵⁹ See Foucher, vol. 2, p. 137, fig. 379, p. 145, fig. 382, p. 149, fig. 383.

⁶⁰ Rosenfield, p. 247, fig. 78.

was a *polos* on her head. She holds in her left hand a cornucopia with an animal-headed finial and her consort turns toward her holding up a large *kylix* in his right hand. The motives of the small child clinging to the woman's knee, the demonic figures pouring out the contents of large vases beneath the feet of the couple, and the small bearded *genius* who peers over the back of the throne with a full money-bag in his hand may all be related to the general scheme of the imagery of Pāñcika and Hāritī.⁶¹ Bachhofer has observed, however, that the clothing and attributes of pairs such as these are derived from the images of PHARRO and ARDOXSHO on Kushān coins; but he has perhaps gone too far in asserting that these deities were meant to be an Iranian replacement for the more familiar Indo-Kushān Tutelary Couple.⁶² It seems apparent from the many characteristics that they shared with Pāñcika and Hāritī that they were identical in the functions of bestowing wealth and progeny to their Gandhāran devotees.

⁶¹ Hāritī, in the more usual version of the Tutelary Couple, is frequently shown with numerous infants. The Shāh-jī-ki-Dherī group in the Peshāwar Museum has the identical motive of the child clinging to her right knee (Ingholt, p. 147, no. 344). The theme of the half-figures pouring out the contents of vases is more complex. In a version of the Tutelary Couple from Jamalgarhi, in the Peshāwar Museum, these vessels are money bags streaming coins (*Ibid.*, p. 147, no. 343). But, in another representation from Sahrī-Balhol, of the PHARRO and ARDOXSHO type, the motive has become a stylized pattern of two vases lying on their sides, exuding a design that is more vegetal than coin-shaped (*Ibid.*, pp. 147–148, no. 345).

⁶² See L. Bachhofer, *Pāñcika und Hāritī — Pharo und Ardoxsho*, *Ostasiatische Zeitschrift*, n. f. 13, 1937, pp. 6–15. Bachhofer believes

It is evident from the wealth and variety of the imagery of the Tutelary Couple that their following was a large one in the lands to the south of the Hindu Kush in the era of Kushān domination. Since this region included a mixed population with the elements of Indian, Iranian, and even Greek cultural inheritance, it would not seem too unusual to find the Tutelary Couple in a number of differing guises, depending on the time and/or place they were created. If a Graeco-Iranian, or perhaps more precisely Dynastic Kushān influence, is to be held responsible for transforming the usual Pāñcika and Hāritī into the equivalent of PHARRO and ARDOXSHO, something of the same hybridization must have produced the extraordinary representation on the medallion of a silver bowl found near Tank in the Punjab (*fig. 13*). Here, surrounded by an undulating vine motive, a pot-bellied, mustachioed, nude male sits drinking from a rhyton with an animal-headed spout.⁶³ He wears vine-leaves in his hair, a thin drape over his

PHARRO and ARDOXSHO to be an Iranian reaction against Indian influence, but this does not seem probable. There is too much syncretism of imagery, and both share too many attributes to be entirely separate entities. Rosenfield notes the appearance of a figure resembling PHARRO in the place of Kubera-Vaiśravaṇa as chief of the Four Guardian Kings, in a scene of the donation of the four bowls to the Buddha (p. 247, *fig. 83*).

⁶³ O. M. Dalton, *Treasure of the Oxus*, British Museum, 2nd ed., 1926, pp. 58–59, no. 204, and pl. XXXIII. Dalton first suggested an identification of the main figure as Kubera cf. *ibid.*, pp. 51–52, no. 198, and pl. XXVIII. This is a silver roundel showing a seated goddess on a high-backed throne decorated with a running vine motive. She holds a bunch of grapes in her right hand to a small adorant with a bowl. The goddess is most likely an Hāritī-ARDOXSHO type. AR-

thighs, and boots with turned-up toes. In his left hand he clutches the neck of a full wineskin. A smaller seated female on his right is dressed in a long skirt, a shawl fastened with a brooch at the neck, and a diaphanous upper garment. She carries a footed goblet in her right hand and a wreath or diadem in her left. This wreath is very close to one held by a royal personage in a festal scene engraved on a silver plate of Sasanian type in the Walters Art Gallery;⁶⁴ and the undulating channels which radiate from the edge of the medallion to the rim of the bowl are almost identical to those found on another Sasanian silver dish in a private collection in Teheran.⁶⁵ Although we cannot believe that the Tank bowl was the product of a Sasanian atelier, it does bear the mark of a tradition contemporary with cultures within the Sasanian orbit which display elements of a dionysiac symbolism in silverwork decoration in many ways parallel to that found in Gandhāra.

The portly vine-wreathed wine drinker of the Tank Bowl belongs most obviously to the Kushān dionysiac Yaksha tradition

and corresponds most closely with Kubera. It is a work which appears to have been created out of a series of iconographic and stylistic amalgamations that preceded it and thus to have been produced in a very late era of Kushān influence. One significant piece of evidence that seems to corroborate this view is a large square clay tablet seal modelled on both faces, from Taxila.⁶⁶ The obverse shows a *garuḍa*, or possibly a cock with a lotus stalk in its beak, trampling a snake, represented above a Brāhmī inscription of Gupta character, belonging, according to Marshall, to the fifth century A.D. On the reverse (*fig. 14*), is a seated figure with legs spread apart, wearing a fillet with long tails and a thin drape over the thighs, and holding aloft in his right hand a horn-shaped object. This led Marshall to identify him as a wind god blowing a horn. Some sort of foliage and a small attendant bearing indistinguishable objects appear on his left, and on the opposite side are two dwarf-like figures, one of whom holds a long-necked vase. Comparisons between the so-called "wind god" and the deity of the Tank bowl are una-

DOXSHO is commonly seen seated on a high-backed throne on later Kushān coinage (see V. Smith, *Catalogue of the Coins in the Indian Museum, Calcutta*, Oxford, 1906, vol. 1, pl. XIII, no. 11, pl. XIV nos. 2, 5, and 6; Foucher, vol. 2, pl. V, no. 20; A. Cunningham, *Later Indo-Scythians*, Numismatic Chronicle, 1893, pl. IX). The grape cluster held by the goddess may be related to that of the Shāh-jī-ki-Dherī Hāritī (Ingholt, p. 25, pl. II, 3).

⁶⁴ F. Sarre, *Die kunst des alten Persien*, Berlin, 1922, p. 65, pl. 3; K. Erdmann, *Die kunst Irans zur zeit der Sasaniden*, Berlin, 1943, p. 98, fig. 69. This plate, unlike those of the more usual applied-relief or repoussé techniques of Sasanian silverwork, is engraved. Its date is as problematic

as its provenance, which could be from Central Asia rather than Iran. Some of the Chionite coin types from the group to the north of the Hindu Kush show royal profiles having a crown with a peculiar lobe-shaped *korymbos*-device, similar to that on the crown of the royal figure on the Walters Art Gallery plate (cf. R. Ghirshman, *Les Chionites-Hephtalites*, MDFAA, vol. 13, 1948, pp. 9-10, figs. 5-6).

⁶⁵ *Sept mille ans d'art en Iran*, exhibition catalogue, Paris, 1961, no. 821. The central medallion has a monogram in the form of a trident. The bowl was supposedly found in Deilaman.

⁶⁶ Marshall, *Taxila*, vol. 2, p. 682, no. 38, vol. 3, pl. 208, no. 59a,b. Marshall renders the inscription: "of Harischanda."

voidable; both are seated in the same manner, with a drape across the thighs, and both hold a horn-shaped object, which on the Tank bowl is obviously a rhyton. Since the "horn" does not appear to touch the lips of the figure on the seal, it seems likely that it is not a musical instrument at all but a horn-shaped rhyton from which he drinks in proper Iranian fashion.

A similar motive occurs on a moulded relief roundel on a large unglazed amphora of Sasanian type from Khotan, again displaying a portly figure, here bearded and nimbate, seated with an animal-headed rhyton in his right hand and a vessel or sack in his left.⁶⁷ Another of the roundels shows a female attendant with a tall ewer.

Of the three examples of the Kubera-with-rhyton motive described above, the third is surprisingly far removed from its original Kushān habitat. This migration of imagery, however, may be explained in large part by the wave of Buddhist Indian civilization, emanating from Kushān controlled area of north India, which swept along the trade routes of Central Asia to China beginning in the second century A.D. Kubera (Vaiśravaṇa) appears to have been brought to this region through the medium of Kushān Buddhist influence where his cult became extremely popular, particularly in his function as treasure

guardian. Hsüan-tsang mentions an image of the King of the Spirits at a Buddhist monastery in Kāpiśa which protected a treasure beneath its right foot. When a petty king tried to dig it up, the parrot on the figure's headdress flapped its wings and the earth shook causing the terrified ruler to flee.⁶⁸ In a similar report by Hsüan-tsang, we are told of a spear-bearing image of Vaiśravaṇa at Balkh placed in front of a monastery which was the repository of a vast treasure. A Turkish prince who had intended to raid the place dreamed he was pierced by Vaiśravaṇa's lance and subsequently died.⁶⁹ According to the *Annals of Li-yul*, a Tibetan history of Khotan, Vaiśravaṇa was not only a tutelary deity of the country but also the divine parent of its first king.⁷⁰

It may also be of some significance that the *Candragarbha-sūtra*, written in the second half of the sixth century A.D., refers to Kubera and Hāriti as tutelary deities of Persia.⁷¹ This is obviously not Iran as a geographical entity but probably an area of Sasanian control in Central Asia. Sung-yun (ca. 520) speaks of Persia as a wild and backward region in the western foothills of the Pamir (T'sung-ling) mountains.⁷² Sung-yun's report comes, of course, from an era prior to that of the Sasanian Khosro I and the reappearance of Iran as a formi-

⁶⁷ A. von Le Coq, *Die vierte deutsche Turfan-expedition*, Túràn, 1918, pp. 338-343, pl. V; R. Ettinghausen, *Parthian and Sasanian Pottery*, Survey of Persian Art, ed. A. U. Pope, rev. ed., London, 1964, vol. 1, p. 672, vol. 7, pl. 186, b.

⁶⁸ Hsüan-tsang, *Si-yu-ki*, trans. S. Beal in *Buddhist Records of the Western World*, London, 1884, vol. 1, p. 59.

⁶⁹ *Ibid.*, vol. 1, p. 45.

⁷⁰ F. W. Thomas, *Tibetan Literary Texts and Documents concerning Chinese Turkestan*, Lon-

don, 1935, vol. 1, pp. 98-99, pp. 303-309. Hsüan-tsang has a different version of this story in which the founder of the dynasty, Kustana, miraculously appeared as an infant from the head of an image of Vaiśravaṇa (Beal, vol. 2, pp. 310-311).

⁷¹ S. Levi, *Notes chinoises sur l'Inde*, Bulletin de l'École Française d'Extrême-Orient, vol. 5, 1905, p. 267 no. 33.

⁷² Sung-yun in *Buddhist Records*, trans. S. Beal, pp. xcii-xciii.

dable power in Central Asia in the second half of the sixth century. If the *Candra-garbha-sūtra* is a product of the era following the destruction of the Hephthalite Empire, as it seems to be, then "Persia" may mean a large area under Sasanian control up to the Oxus.

To return to India and an earlier period, yet another and even more unlikely image of a deity holding a rhyton may be found on a pillar relief from the palace site of Vijayapurī at Nāgārjunakoṇḍa (fig. 15).⁷³ Here the personage is represented standing and semi-nude, with a drape across his thighs. He is bearded and holds aloft in his left hand a rhyton-shaped vessel which, if it is such, has been completely misunderstood since the figure appears to be about to drink from the wrong end. Longhurst has called this image "Dionysus," noting that it was probably an inexperienced copy of a Roman work. It seems far more likely, however, that its inspiration came not from the West but from more or less classicizing models of the Kushān School. An indication of Kushān presence at Vijayapurī is seen on a similar pillar relief displaying a standing warrior with spear, wearing the typical Indo-Scythian costume of a long coat, trousers, and ornamented cap.⁷⁴ The sculptor seems to have erred once more in giving this heavily clothed foreigner bare feet. It is very probable that Indo-Scythian types were employed as guards by the Ikṣvāku rulers at Vijayapurī, and that contacts such as these brought about at least some familiarity with the culture and art of north India

under Kushān domination. One inscription found near Monastery II at Nāgārjunakoṇḍa mentions the pious gift of a *pati-padā* (*pratīpāda*), or footprint slab, by Buddhi, sister of Moda, the Śaka.⁷⁵ Although it is impossible to find any exact counterparts for the Vijayapurī "Dionysus" among the remains of Mathurā or Gandhāran art, it seems reasonable to suggest that the prototype must have come from this area, and that the intention was to portray the Yaksha king Kubera with his vessel of wine.

The Yaksha imagery of early Indian Buddhist art, particularly at Bhārhut and Sāñchī, exhibits many examples of these playful demigods producing and inhabiting vegetation (very often the lotus-vine), riding fantastic beasts, and engaged in festal drinking. In Kushān Gandhāra, their activities are basically similar; the major difference being that the miraculous lotus has been replaced by the grapevine, and that their beverage is clearly wine. At Mathurā a compromise seems to have been achieved, since both the lotus and other indigenous vegetal motives appear along with the grapevine or actually mixed with it in the decorative repertoire.⁷⁶

⁷³ J. Ph. Vogel, *Epigraphia Indica*, vol. 20, p. 37; Longhurst, p. 24. Longhurst suggests that there may have been Scythian soldiers employed as a royal bodyguard, and thus a colony at Nāgārjunakoṇḍa.

⁷⁶ The Pālikhērā stone bowl displays a combination of grape, *śoka*, and other motives within one vine (*vide supra*). See also Rosenfield, fig. 41 (a relief fragment showing two worshippers beside a Śivaite *lingam*, next to a piece of running vine ornament with grapes and leaves, inhabited by peacocks); cf. V. S. Agrawala, *The Vine Motif in Mathurā Art*, JISOA, vol. 4, 1936, pp. 130-134, pl. XVII.

⁷³ Longhurst, p. 11, pl. X, d.

⁷⁴ *Ibid.*, pl. X, c; cf. Rosenfield, p. 224, figs. 157-158.

Viticulture most certainly thrived in the lands under Kushān rule, and it is likely that the vine was known and cultivated in the Indo-Afghan highlands many centuries before their arrival. The earliest Indian reference to it comes from Pāṇini, who noted that a grape-wine called *kāpiśāyanī* (after the Kāpiśa region), was imported in his time.⁷⁷ Two other varieties which he mentions are the *kālikā* and *avadatikā*, probably from the Kabul valley.⁷⁸ The use of wine in Maurya times is soundly substantiated by Kauṭilya, who noted that the best known vintages were the *hārahūraka* and the *kāpiśāyani*.⁷⁹ A taste for imported Greek wine must also have been cultivated at the Maurya court, since the Greek historian Hegesander quotes a letter from Bindusara to the Seleucid Antiochus

I requesting Smyrna figs, a Sophist, and a type of Greek sweet wine. Antiochus replied that the figs and wine would be sent, but that a Sophist, according to Greek custom, could not be given away as a gift.⁸⁰

To the historians who documented Alexander's campaigns in Asia, the "India" of his conquests was not a grapeless region, since viticulture had been introduced there long ages before by Dionysos himself when he had conquered India.⁸¹ When the Macedonians reached the city of Nysa (perhaps Nagarahāra on the Kabul River), Alexander spared it in deference to its immortal founder and visited the shrines of the god's sacred peak, Mt. Meros.⁸² Dionysos had named this mountain, so it was claimed, after the Greek word *μηρός* (thigh) in honor of his second birth from the thigh of Zeus.⁸³

⁷⁷ Pāṇini, *Ashtādhyāyī* iv. 2. 99. Cited by O. Prakash in *Food and Drinks in Ancient India*, New Delhi, 1961, p. 44.

⁷⁸ *Ibid.*, v. 4. 3; Prakash, *loc. cit.*

⁷⁹ Kauṭilya, *Arthasastra* ii. 25. 25; Prakash, p. 96, cf. pp. 94–95.

⁸⁰ Hegesander in *Fragmenta historicorum graecorum*, ed. T. Muller, Paris, 1878–85, frag. 43, iv, p. 421.

⁸¹ Arrian *Indica* i. 1–8; Arrian *Anabasis* v. 1; Diodorus Siculus *Bibliothekis* ii. 38. 4; Q. Curtius Rufus *De rebus gestis Alexandri Magni* viii. 10.

⁸² *Anabasis* v. 1. 6., v. 2. 5–7; *Indica* i. 6. The Nysa found by Alexander is likely the Νῆσσα Διονυσιοπολις of Ptolemy (*Geography* vii. 1. 43), which could only be Nagarahāra in the Jelālābād district; cf. A. Cunningham, *Ancient Geography of India*, new ed., Varanasi, 1963, p. 39. Nysa, outside its mythological associations with Dionysos in several different locations, is an old Iranian place name. According to the great Darius inscription, Nisaya was district in Media (see F. W. König, *Relief und inschrift des koenigs Dareios I am felsen von Bagistan*, Leiden, 1938, p. 39 [13], p. 69). Another Nisaya is mentioned in the *Vendi-*

dad (i. 8). There is no reason why a region or settlement on the Kabul could not also have been given the Iranian name Nisaya or Nysa during the Achaemenid era. The Mt. Meros of Alexander, however, has been equated with the triple-peaked Mt. Koh-i-Mor in Swat (*Cambridge History of India*, vol. 1, pp. 353–354). This presents certain geographical problems, since Nysa was supposedly located at its foot. A. K. Narain supposes that Greeks, like the Branchidae, may have settled Nysa during Achaemenid times, but this cannot be proven (*The Indo-Greeks*, Oxford, 1957, pp. 2–5). Arrian mentions that the Nysaeans were shorter and fairer than the Indians, more like the Greeks, themselves (*Indica* i. 24). This could have been due to a strong admixture of non-Indian elements in the population.

⁸³ Ivy grew wild on Mt. Meros, as did the vine, but because of heavy rains, the grape clusters tended to fall before ripening (Strabo, *Geography*, xv. 1, 8). See also Pliny, *Historia* vi. 22. 23. According to Julius Solinus, there was a cave on Mt. Meros where Dionysos was nourished (*Collectanea* 52. 17). Polyenos tells us that the mountain had three peaks, one called Meros, the other two, Kondraske and Korasibie (*Stratigica* i. 1. 2).

Actually, this appellation may be a Greek corruption of its true name, Mt. Meru, the fabulous Indian World Mountain, by which it was known to the local populace. On its slopes grew the laurel, ivy, and grapevine so familiar to the homesick Greeks who were allowed to linger there to attend bacchanalian celebrations.⁸⁴ We shall return to the Indian Dionysos presently; suffice to say that classical evidence strongly infers that Alexander's armies found the vine already flourishing when they descended into northwest India. This area of viticulture to the south of the Hindu Kush was probably part of a much larger complex of ancient vine-growing areas in Central Asia. The first accurate report of these was made by the Han emissary Chang-Ch'ien (ca. 130–125 B.C.) who found the new and unfamiliar fruit in Ta-yüan (Ferghana) and among the An-hsi (Parthians).⁸⁵

We may assume that the Yüeh-chih had already become acquainted with grapes and wine in Ferghana or Bactria before the establishment of the Kushān kingdom. Subsequently, they probably not only fostered vine cultivation in their realms but also exported grapes and wine to the vineless areas of India. The demand for wine must certainly have been great, since the *Periplus of the Erythraean Sea* records imports of Italian, Laodician, and Arabian vintages at Barygaza.⁸⁶ Other wine-importing ports

⁸⁴ The vine flourished in the territory of the Oxydrakai (Strabo, *Geography*, v. 8) and in the country of the Mousikanos (*Ibid.*, v. 22. 1).

⁸⁵ B. Watson, *Records of the Grand Historian of China, translated from the Shih-chi of Ssu-ma-ch'ien*, New York, 1961, vol. 2, pp. 266–269, pp. 279–280. The inhabitants of Ta-yüan stored vast amounts of wine. Strabo relates that Margiana, Hyrcania, and Ariana produced grapes of phenomenal size (*Geography*, ii. 1. 14); cf. B. Laufer,

were Muziris, Nelcynda, Bacare, and Barbaricum, the port of Minnagara on the Indus Delta.

Although viticulture is probably less extensive in modern times, botanical surveys of the last century have demonstrated that the grape still grows in the northwest hill country, particularly around Jelālābād, Peshāwar, and in the Punjab.⁸⁷ The variety abundant around Peshāwar is the *vitis parvifolia*, or Himalayan wild grape, which has small leaves and small berries of a sweet delicate flavor and thrives in a wild or semi-cultivated state.⁸⁸ It is not impossible that this was the variety of wild grape discovered by the Greeks on Mt. Meros.

Since local traditions of Yaksha-lore in India have their origins in the most remote antiquity of popular culture, we may suppose that the Yakshas were not unknown in the northwest prior to the arrival of the Kushāns or perhaps even before any significant missionary activity of Buddhism in the region. With this in mind, the question inevitably arises as to whether the Yaksha-cult of this grape growing area became associated with the vine during the Kushān era or whether this had not taken place previously.

One of the railing pillars of the Bhārhut Stūpa bears the image of a standing warrior (*fig. 16*) holding in his hand what

Sino-Iranica, Field Museum Anthropological Series, vol. 15, no. 3, Chicago, 1919, p. 223, pp. 231–233.

⁸⁶ *Periplus of the Erythraean Sea*, trans. W. H. Schoff, New York, 1912, p. 42, no. 49, p. 77, pp. 44–45, nos. 53–56.

⁸⁷ For references see G. Watt, *A Dictionary of the Economic Products of India*, London, 1893, vol. 11, pt. IV, pp. 270–271.

⁸⁸ *Ibid.*, p. 360.

appears to be a tiny vine-sprig and grape cluster, not unlike the botanical description of the Himalayan wild grape.⁸⁹ Unlike the other railing pillars on which Kubera, Yakshas, Yakshīs, and related beings are depicted as recognizable Indian types, the Bhārhut warrior is unusual. He wears a long sleeved tunic tied in front with cords and reaching to mid-thigh, a robe or dhoti falling in swallow-tail folds to the knee, high boots, and a sheathed sword hanging from his left shoulder by a strap. His head is uncovered, displaying short-cropped curly hair bound by a ribbon tied at the back with two long ends floating out behind. R.P. Chanda once suggested that this strangely attired figure might represent Vepacitta, the chief of the Asuras, mentioned in the *Samyutta-nikāya* (I, 223–226) as wearing boots and carrying a sword.⁹⁰ Barua thinks that it might be the solar deity Mihira and associates it with the Mahila, the name of the monk who is inscribed as dedicator of the pillar.⁹¹ Coomaraswamy calls the Warrior either Vepacitta (Virocana) or Sambara, the Asura chief as a solar divinity.⁹² On the other hand, less

specific suggestions have been made by Majumdar, who is undecided about the Warrior's identity but notes that the vine-sprig relates the image to the northwest,⁹³ and by Prakash, who surmises that it might be an Indo-Greek king.⁹⁴ One can hardly imagine why an Indo-Greek king should be found in the midst of Yaksha-types as a *stūpa* guardian, but this theory may not be too far from correct.

The Warrior's boots are characteristically non-Indian as is his sleeved jacket. Such jackets or tunics are frequently worn by the "foreigners" depicted at Sāñchī⁹⁵ and may be associated with generally Iranian modes of costume. The particular cut of the jacket, with sleeves and ties to fasten it in front, are similar to a garment represented on the stone image of a Parthian nobleman found in Iran and tentatively dated to the second century B.C.⁹⁶ The sword, which is long and broad and fitted into a scabbard with crossed thongs and a *nandipāda* pin, is probably of the *maṇḍālāgra* type known in Kauṭilya's time⁹⁷ and the same as that described by Arrian as a sword of three cubits in length which the

⁸⁹ Cunningham, *Bhārhut*, pp. 32–33, pl. XXXII, fig. 1; Coomaraswamy, *La sculpture de Bhārhut*, p. 62, pl. XVII, fig. 43.

⁹⁰ B. Barua, *Bārhut*, Calcutta, 1934, vol. 2, p. 69.

⁹¹ *Ibid.*, vol. 2, pp. 68–70.

⁹² Coomaraswamy, *loc. cit.*

⁹³ N. G. Majumdar, *A Guide to the Sculpture in the Indian Museum*, Delhi, 1937, pt. 1, pp. 24–25.

⁹⁴ Prakash, p. 149.

⁹⁵ See *Sāñchī*, vol. 2, pl. 24, 3 (false capital on front of east end of Northern Gateway of Stūpa I showing riders wearing sleeved tunics mounted on winged lions); *ibid.*, vol. 2, pl. 62, 4 (north end of Western Gateway of Stūpa I showing a rider with

tunic boots and short hair on a winged lion); *ibid.*, vol. 2, pl. 36 cl (inner face of west pillar of Northern Gateway of Stūpa I showing foreign musicians wearing sleeved tunics, sandals, cloaks fastened at the neck, and on their heads, round or pointed caps, or fillets).

⁹⁶ R. Ghirshman, *Iran: Parthians and Sassanians*, trans. S. Gilbert, J. Emmons, London, 1962, p. 27, fig. 36. The long-sleeved jacket has several ties in front. The hair is treated in typical Parthian style, bound by a fillet, but with long sidelocks covering the ears, unlike the Bhārhut Warrior whose hair is uniformly short in the Greek manner.

⁹⁷ Cited by M. K. Dhavalikar in *Sāñchī, a Cultural Study*, Poona, 1965, p. 29, pl. 62, 2.

Indian warriors wielded with both hands in close combat.⁹⁸ The Bhārhut Warrior's headband and uncovered close-cropped hair are clearly exotic accretions, and seen together, they most closely approximate Greek fashions. The ribbon with long tails is a Greek fillet, most commonly recognizable in Hellenistic times in white *diadema* of royalty following the style set by Alexander. A preponderant number of the ruler portraits on Bactrian and Indo-Greek coins show the bareheaded profile with short curly locks bound with the *diadema*.⁹⁹ From these details of costume, all so seemingly disparate in origin, the Bhārhut Warrior is revealed as a remarkably hybrid type, combining features of dress which are Indian, Iranian and Greek.

On a false capital from the *torana* or the Eastern Gateway of Stūpa I at Sāñchī, there is a pair of small figures riding fantastic winged-lions with antlers (*text fig. 1*).¹⁰⁰ The rider on the right side of the block wears a turban and brandishes a large lotus stalk above his head while his counterpart, who wears a sleeved-tunic and has short curly hair bound with a fillet, similarly holds a large grape-cluster. There can be no doubt that both these diminutive riders are Yaksha-types, yet each is represented in a different costume with different attributes. The lotus, so often associated with Yakshas in early Indian sculpture and in all periods the most auspicious vegetative life-symbol, is here juxtaposed with the alien vinestock as if both were endowed with a similar sig-

nificance. In this instance, it would appear that the sculptor has shown us two culturally and geographically separate breeds of Yaksha: one from the northwest vine country and the other an indigenous Indian type.



TEXT FIG. 1.—RELIEF FROM EAST GATEWAY AT SANCHI. Photo from A. Grünwedel, *Buddhist Art in India*, Fig. 10.

In regard to the Bhārhut Warrior, I would like to suggest that he too should be interpreted as a Yaksha, like those of other pillars, but one whose attire and vine-sprig attribute associate him with the northwest. Furthermore, his aspect as guardian warrior or *senāpati* together with the exotic Graeco-Iranian elements of his appearance suggest that he may have been intended to represent a prototype of the Gandhāran warlord, Pāñcika, of Kushān times.

There is a relief on the inner face of the south pillar of the Western Gateway of Stūpa I at Sāñchī displaying a standing warrior-guardian holding a spear in his left hand.¹⁰¹ He is, however, clearly an Indian type, dressed in dhoti and turban, with

⁹⁸ *Indica* 16.9.

⁹⁹ See A. N. Lahiri, *Corpus of Indo-Greek Coins*, Calcutta, 1965, pp. 22–23.

¹⁰⁰ A. Grünwedel, *Buddhist Art in India*, rev. and enl. by J. Burgess, 2nd ed., 1965, pp. 33–34, fig. 10.

¹⁰¹ *Sāñchī*, vol. 2, pl. 66, a.

bare feet and chest adorned with heavy necklaces. Hanging from a mango tree on his right is a long sword in a scabbard bound with crossed thongs and fastened with a *nandipāda* pin. This figure was identified by Marshall and Foucher as an anonymous Yaksha-*senāpati*, but Foucher went so far as to suggest that it might represent Pāñcika.¹⁰² The Sāñchī *senāpati* is basically Indian in conception, without the unusual features of the Bhārhut Warrior, but his very presence and position on the Sāñchī Gateway lend authority to an identification of the Bhārhut images as that of a proto-Pāñcika.

It seems clear that the Yakshas of the Kushān northwest had intimate associations with the vine and viticulture and that these connections were recognized prior to the Kushān era, if we consider the evidence from Bhārhut and Sāñchī. A broad investigation into the antiquity of the Yakshas in this region is not possible here, but we should not overlook the fact that Alexander's armies were said to have discovered the worship of Dionysos and his *thiasos* to the south of the Hindu Kush. Megasthenes states that the Indians of the mountains worshipped Dionysos,¹⁰³ and, according to Philostratus, Apollonius of Tyana climbed the god's sacred mountain during his visit

to India and discovered there a rustic open-air shrine encircled with a thick planting of trees and vines to form a natural roof or arbor. Inside the sacred area he saw vats, baskets, and implements of viticulture of gold and silver and a white stone image of Dionysos in Indian guise.¹⁰⁴ It is not beyond the realm of possibility that Philostratus' description is more or less accurate (although the accoutrements of the shrine were perhaps not so splendid) and that it was a well-known place of worship in the surrounding region. Since Yakshas, as we have seen, were linked with the vine in this area, the sanctuary could have belonged to an important Yaksha whose image Apollonius took for Dionysos. The description is not much different, in fact, from those of early Yaksha shrines in Indian literature since they could be, and usually were, in the open air, in groves or on mountains, within some sort of enclosure surrounding a tree or image of the deity.¹⁰⁵ Moreover, the whole spirit of *bhakti* worship within the Yaksha cult—the unrestrained personal devotion of the adorants with music, dancing, pageantry, and the annointment and garlanding of the image—all these elements of Indian popular religion had much in common with the cult of Dionysos.¹⁰⁶ If the grapevine had been given a place of some

¹⁰² *Sāñchī*, loc. cit.; Foucher, vol. 2, p. 116, p. 375, fig. 470. The spear or lance is characteristic of the Gandhāran Pāñcika.

¹⁰³ Strabo, *Geography*, xv. 1. 58.

¹⁰⁴ Philostratus, *Life of Apollonius of Tyana*, ii, 8.

¹⁰⁵ See Coomaraswamy, *Yakṣas*, pt. I, pp. 17–28. The abode of a Yaksha may be outside a city in a grove of trees or on a mountain. The center of the shrine usually included a tree with an altar or stone dais beneath, and possibly a statue. According to the *Aupapātika-sūtra*, a shrine of

Puṇṇabhadde (Puṇṇabhadra) had ritual jars (*van-dayaghade*) beside the entrances. It was located in a clearing in a wood around an *aśoka* tree with a stone dais beneath it. The area was enclosed by a *vedikā* or *prākāra*; cf. O. Viennot, *Le culte de l'arbre dans l'Inde ancien*, Paris, 1954, pp. 113–115.

¹⁰⁶ See *Yakṣas*, pt. I, p. 19. The Yaksha shrine was a popular haunt of dancers, musicians, minstrels, and other entertainers. The Jaina *Jivāka-cintāmanī* tells of a drama relating the history of a Yaksha presented on special occasions

special importance within the Yaksha cult of the northwest prior to the advent of Alexander, it would not be difficult to see how the Greeks might have transposed its rites and shrines to those seemingly dedicated to the Asiatic Dionysos.

The most apparent reason for the presence of wine and drinking among the Kushān Yakshas is that these deities as well as Nāgas and other related types were considered by their devotees to enjoy offerings of *surā* (spiritous liquor). In this heterodox, non-Brahmanical form of popular religion, meat and intoxicants were the traditional offerings to all beings of the Yaksha-class.¹⁰⁷ According to the *Laws of Manu* (XI, 96) a Brahmin was forbidden to partake of what had been consecrated for the Yakshas, but this prohibition probably did not include the vast majority of their worshippers. Since wine made from the grape was the most common intoxicating drink in the northwest, it could easily have been used as a form of *surā*, and, as such, used in Yaksha offerings.

We have no way of knowing whether there was any direct association between

(*ibid.*, pt. i, pp. 24–28). Yaksha worship contains all the essential characteristics of popular Hindu worship; only the animal sacrifices and liquor offerings are peculiar to it. Correspondences between the ancient cult of the Yakshas and the elements of a popular fertility cult surrounding the Greek Dionysos are self-evident. The presentation of a cult drama is most striking, and we should not forget that a primitive form of the god is *Dionysos-dendrites*.

¹⁰⁷ See *Jātakas*, no. 113, describing a Yaksha festival with liquor offerings; no. 146, in which liquor offerings are made to Nāgas; and the *Kalbhāsaritsāgara* (chap. CV) where offerings of meat and wine are made to Yakshas on the wedding day; also Rosenfield p. 315, note 160.

the cult of the Yakshas and Dionysos during the Indo-Greek era, although this is a distinct possibility. The vinestock and *kantharos* were symbols of new life and ultimately of the felicity of the blessed in Roman sarcophagi. It is conceivable that the dionysiac motives of the Kushān sculptural repertoire had similar connotations within Buddhism. In Coomaraswamy's *Yakṣas*, part II, we are presented with two important generalizations. First, the author recognizes that all Yakshas, great and small, are vegetative spirits, directly controlling, and bestowing on their *bhaktās* fertility and wealth, or to use a single word, abundance. Secondly, Coomaraswamy points out that Yakshas are intimately connected with the waters and water symbols, such as the conch, *makara*, lotus, or the *pūrṇa-ghaṭa*. Yakshas are the veritable Lords of Life: "The fact is that the Yakṣas control not so much the waters as mere waters, but the essence (*rasa*) in the waters which is one with the sap in trees, with the *amṛta* or elixir of the Devas, especially Agni, with the Soma, and with the seed in living beings."¹⁰⁸ This *rasa* is in its purest form in the sap of plants which are the embryo of the waters (*apām garbha*) and draw it from the rain and water in the soil. Soma is the purest form of the *rasa* of plants, but it is also found in milk, rain, dew, mead (*madhu*), semen, and *surā*.¹⁰⁹ The Yakshas thus symbolize the fructifying power of the Waters and protect, or actually contain within themselves the germ of creation. The whole of Coomaraswamy's Water Cosmology has its origin in the ancient

¹⁰⁸ Coomaraswamy, *Yakṣas*, pt. II, pp. 13–14.

¹⁰⁹ Cf. F. D. K. Bosch, *The Golden Germ*, 's-Gravenhage, 1960, pp. 59–60.

popular conception of the creation of the world from the Primal Waters. From this is derived the concept of a Primal Spirit, present in or upon the Waters, out of whom all life is engendered, seen as a great Yaksha, Varuṇa, or Viṣṇu.¹¹⁰ Although there are reasonable objections to links between a vague conception having its origin in the Vedic age and the imagery of the so-called Plant Style at Bhārhut, Coomaraswamy argues that such motives were products of a very old, but unknown, iconographic tradition.¹¹¹

The Yakshas of popular ancient Indian folk religion, according to Coomaraswamy, became the guardians and bearers of the fertilizing essence, the *rasa* necessary for birth and regeneration, which was ultimately the same as the heavenly *amṛita*, or Soma. In the *Vedas* and *Brāhmaṇas* the deities who fulfill this function in respect to Soma were the Gandharvas and Apsarasas, who are considered to have their abode in trees.¹¹² It seems probable, as Coomaraswamy has suggested, that the original nature of the Gandharvas and Apsarasas was transmitted to the Yakshas who had become the popular deities of fertility.¹¹³

Kushān Yaksha images and those of Nāgas often carry the attribute of the flask, goblet, or drinking vessel of some type, which, as we have seen, also occurs in Indian art prior to the Kushān era. Although there appears to be no standardization of these vessel types, it seems apparent that the attribute had a universally similar meaning. Yakshas and Nāgas were believed to be great imbibers of intoxicating li-

quor, but it is difficult to see why this propensity alone would have caused the attribute to be so commonly repeated. The most reasonable assumption, in light of Coomaraswamy's characterization of the Yakshas, is that these vessels were meant as containers of the *rasa* which they protected, and from which their powers as Lords of Life were derived. Although the Yaksha cult was never connected with the Brahmanical Soma of the Devas, it is indeed possible that, to the pious devotees of their cult, *surā* or wine was seen not simply as an intoxicant but as an *amṛita* substance. If this is true, there is a much greater intrinsic similarity of meaning between the symbolism of the Hellenic Dionysos and that of the Kushān Yakshas than has formerly been acknowledged. The grapevine, like the lotus vine, is a true *arbor vitae* in Kushān imagery, and the flask or vessel of wine may be the *vas vitae*, conceptually akin to the *kantharos* of Dionysos.

Stacy may have been not altogether wrong in suggesting that the Silenus block originally supported a vessel for wine offerings, even if it has since been demonstrated that it was probably used within a Buddhist establishment. The use of wine offerings to Kubera or other important Yakshas would only have been a continuation of cult practices under the aegis of Buddhism, at a time when the cult of the Yakshas in the northwest had not been fully assimilated within the framework of Buddhist orthodoxy. It is probable, however, that later during the Kushān era the practice was discontinued. There are, of

¹¹⁰ See Coomaraswamy, *Yakṣas*, pt. II, pp. 25–26, p. 29, p. 35.

¹¹¹ *Ibid.*, pt. II, p. 17.

¹¹² *Ibid.*, pt. II, p. 33 (with numerous references).

¹¹³ *Ibid.*, pt. II, p. 34.

course, a number of reported instances of the habitual offering of different types of food to tutelary Yakshas or Nāgas within Buddhist monasteries; so this, in itself, is not unusual.¹¹⁴ A late Chinese source, according to Peri, mentions outdoor altars for Yaksha offerings made of stone in the form of an open lotus and having smooth flat tops to serve as tables.¹¹⁵ The Mathurān stone vases are obviously hollow, not flat topped, but both are decorated with the open lotus motive. An additional bit of information from Coomaraswamy, offered to him by Sir Charles Elliot, is that in Japanese Buddhist temples where Ganesha is worshipped, the offerings include *sake*, although, as a general rule, alcohol is forbidden in such places.¹¹⁶ Since this benevolent elephant-headed deity has Yaksha connections, this factor seems, to Coomaraswamy to justify the offering of such liquor.¹¹⁷ It may well be that this is a modern survival of heterodox practices followed by pious Buddhists in the early years of Kushān rule at Mathurā.

If we may regard the vessels and flasks of Yaksha and Nāga images as a form of

the *amṛita kalaśa*, and not merely as an iconographic allusion to the Yakshas' favorite beverage, a very probable relationship exists between this attribute and the *amṛita kalaśa* of the bodhisattvas.¹¹⁸ In Buddhist iconography there is, however, some confusion about the name and function of this vase, since it is often called a *kamaṇḍalu*, or monastic water vessel. Actually, the shape of both the *amṛita kalaśa* and the water pot are identical in basic shape, having an ovoid body, with or without a case, a long neck, and a flared rim. The usual *kamaṇḍalu*, however, has an additional spout on one side for the purpose of adding water to the vessel.¹¹⁹ During the Kushān era this form does not appear as a bodhisattva attribute, and we may indeed wonder whether the flask was ever intended specifically as such. In this regard Marie-Thérèse de Mallmann, in her study of Avalokiteśvara, has justifiably observed: "Dans l'art Kushāna de Mathurā—où le col du vas se distingue nettement de la panse, où la bordure de l'orifice est retournée, et où le goulot n'est pas pointu—il ne s'agirait pas du *kamaṇḍalu*, mais du vase-à-nectar-d'immortalité, *amṛita-kalaśa*, em-

¹¹⁴ *Bali* offerings were placed before icons of Hārītī and her hungry brood each day in the refectories of monasteries. See N. Peri, *Hārītī, la mère-de-démons*, BEFEO, vol. 17, 1917, pp. 11–12 (from the *Samyuktavastu* chap. XXXI); *I-tsing, a Record of the Buddhist Religion*, trans. J. Takakusu, Oxford, 1896, pp. 37–38. I-tsing also mentions similar offerings before images of Mahakala (Kubera) either in front of the porch or beside a pillard in the kitchen of the monastery.

¹¹⁵ Peri, BEFEO, 1917, pp. 55–56.

¹¹⁶ Coomaraswamy, *Yakṣas*, pt. II, p. 4.

¹¹⁷ Cf. A. Getty, *Ganeśa*, Oxford, 1936, p. 12, p. 18. According to the *Mahānirvāna-tantra*, Gaṇeśa is offered meat, fish, and wine. His images may show him with a wine jar in his trunk.

¹¹⁸ The development of the Buddha and bodhisattva image in the Kushān period is a subject of the utmost complexity which cannot be dealt with here. The Mathurān Yaksha or Nāga flask, however, is so close to that of Mathurān bodhisattvas that the meaning of the attribute must be essentially similar; cf. A. Coomaraswamy, *The Origin of the Buddha Image*, Art Bulletin, vol. 9, no. 4, 1927, pp. 303–305, figs. 48–50.

¹¹⁹ This is, of course, the fully developed Buddhist *kamaṇḍalu*. It may actually have evolved from a primal *kalaśa* form, in which case the confusion would be one of terminology.

blème des divinités royales telles que Indra et Maitreya.”¹²⁰

Maitreya's flask, his most characteristic attribute during the Kushān era, contains *amṛita*, but it has clearly become an abstract essence of spiritual regeneration and symbolic promise of salvation in the future. The *Lalita Vistara* (VII, 91) states: “With the Water of life shalt thou heal the suffering due to the corruption of our mortal nature.”¹²¹ Here the *amṛita* has lost any association with the fecundating germ of creation or propagation of life in the natural world and has emerged as the sustenance of the spirit alone.

There is, interestingly enough, one aspect of Mahāyānist iconographic development which appears to recollect the original function of *amṛita* guardianship by the Yakshas. One of the primary triad of Mahāyāna imagery is that of the Dhyāni Buddha Amitāyus, flanked by the bodhisattvas Padmapāṇi and Vajrapāṇi.¹²² Amitāyus holds a bowl or covered vase containing *amṛita*, and his reflex, Avalokiteśvara, in Padmapāṇi form, carries the *amṛita kalaśa*. The third member of the triad, Vajrapāṇi, is represented with the essential *vajra* as spiritual protector. Vajrapāṇi, in fully

developed Mahāyāna form, is the second Dhyāni bodhisattva, and reflex of Akshobhya, but his earlier guise, before elevation to bodhisattvahood, was that of a Yaksha whose function was to protect the Buddha throughout his earthly career.¹²³ This minor divinity in Gandhāran imagery, as Foucher and others have demonstrated, has all the qualifications of a rustic Yaksha, and in the *Mahāmāyūrī* is said to be the Yaksha of the Vulture Peak in Rājagṛīha.¹²⁴ Although the bodhisattva Vajrapāṇi is far removed from his original character, his appearance with two *amṛita*-bearing deities as protector recalls his Yaksha nature. Vajrapāṇi, himself, does not hold the *amṛita-kalaśa*, but his primary associations with the Water of Life have been retained within Buddhism long after their significance had been forgotten; so long, in fact, that a new mythological explanation was created to justify them. The latest and most obviously syncretic of these comes from Tibetan tradition, in a variant of the ancient cosmological myth of the Churning of the Cosmic Ocean. According to this myth, when the demons had at one time concocted a substance to poison mankind, all the Buddhas met atop Mt. Meru

¹²⁰ M. de Mallmann, *Introduction à l'étude d'Avalokiteśvara*, Paris, 1948, p. 266.

¹²¹ Cited by Coomaraswamy, *Yakṣas*, pt. I, p. 31.

¹²² See A. Getty, *Gods of Northern Buddhism*, Oxford, 1914, pp. 37–38. Getty mentions a Tibetan ceremony surrounding Amitāyus which is a type of communion, for the purpose of obtaining long life. Bits of dough and *amṛita* (Tibetan beer) are offered to the image of Amitāyus, consecrated, and then given to the body of worshippers. Amitāyus, in this instance, fulfills perfectly the embodiment of the deity of Eternal Life, and the *amṛita*, as Elixir of Life, is shared with his devotees.

¹²³ The inclusion of Vajrapāṇi is extremely frequent in Gandhāran reliefs illustrating the earthly career of the Buddha. He is always a secondary figure standing guard with the ubiquitous *vajra*, and his appearance and dress could easily be that of any of a number of nameless Yaksha-types of Gandhāra sculpture. Most often, Vajrapāṇi is represented as a bearded *silenus* or pastoral type, wearing an *exomis* or dhoti. See Ingholt, nos. 92, 99, 100, 104, 137, 188, 189, 333, 334, 336.

¹²⁴ Foucher, vol. 2, pp. 50–64; J. Ph. Vogel, *Le Vajrapāṇi gréco-bouddhique*, BEFEO, vol. 9, 1909, pp. 523–527; S. Levi, *Journal Asiatique*, 1915, p. 30, no. 3; cf. *Lalita Vistara* I, 358.

to devise a means of obtaining an antidote. This was accomplished by the churning of the cosmic ocean, whereby the divine nectar, *amṛita*, rose to the surface. Vajrapāṇi was set to guard it, but in a momentary lapse allowed it to be seized by the demon, Rāhu. A struggle ensued and Rāhu was finally overcome, but not before the *amṛita* had been defiled by the demon's poison. As punishment, Vajrapāṇi was forced to drink the tainted *amṛita*, whereupon he turned dark blue in color.¹²⁵ One need hardly comment on the derivative nature of this myth, except to point out that this is an excellent example of a kind of *ex post facto* myth making that incorporates elements of diverse and half-forgotten origin, including the Yaksha function of *amṛita* guardianship by Vajrapāṇi.

It would seem that after the final eclipse of Kushān culture as an active force, recognizably dionysiac themes came to an end in Buddhist India, although they may have lingered for some time longer in their place of origin. Between approximately the mid-fourth and mid-fifth centuries A.D. the Kidara Kushāns controlled Gandhāra, and allowed Buddhism to flourish there, a fact which, in itself, implies a continuance of artistic productivity in the region.¹²⁶ Even after the destruction

wrought by the Hephthalite invasion (ca. A.D. 460) we cannot be sure that all forms of artistic creation came to an immediate end. The Taxila seal may be dated to the fifth century, and the Tank Bowl is probably also from the same general era of the mid-fourth to mid-fifth centuries A.D. Perhaps the last visual reference to the traditions of the northwest in Indian art may be found in the representation of the Iranian-Central Asian Kubera-Vaiśravaṇa drinking in the midst of his court in the fashion of a barbarian prince, painted on the ceiling of Cave I at Ajantā.¹²⁷

¹²⁷ See A. Foucher, *Lettre d'Ajantā*, Journal Asiatique, ser. 11, vol. 17, 1921, p. 233. Foucher identified the feasting chieftan as Pancika. See also J. Griffiths, *Paintings in the Buddhist Cave Temples of Ajantā*, London, 1896, vol. 2, pls. 94–95. There were originally four of these scenes, three of which were well enough preserved to be illustrated by Griffiths. All are very similar in schema, showing closely related princely types in tunic and conical cap. A vase held by one of the female attendants is a rhyton-form. Perhaps, as V. Goloubew has suggested, the panels were meant to represent the Regents of the Four Directions, in which Kubera-Vaiśravaṇa would be present (*Documents pour servir à l'étude d'Ajantā, les peintures de la première grotte*, Paris, 1927, pp. 19–20). The whole ceiling seems to be representative of a Yaksha paradise, with small figures, both Indian and "Iranian" types, drinking and carousing in the midst of lush vegetal motives. The princely drinker may be compared to Late Kushān donor figures such as the excellent example found beside a Buddha image from Jaulian (Marshall, *Taxila*, vol. 2, p. 471, no. 181, vol. 3, pl. 139 nos. 181–181a). A very similar type of head and cap may be found on an unusual Indo-Iranian silver bowl in decorative medallions (Dalton, *Treasure of the Oxus*, pp. 59–60, no. 205, pls. XXXIV–XXXV). If Cave I may be dated c. 480, as Spink has postulated, the paintings on the ceiling were probably accomplished within a few decades of the initial Hephthalite invasion of Gandhāra, a

¹²⁵ Getty, *Gods of Northern Buddhism*, p. 49. Vajrapāṇi is also a rain deity and patron of the Nāgas.

¹²⁶ *A Record of the Buddhist Kingdoms*, trans. J. Legge, Oxford, 1886, pp. 30–36. Fahsien, in the early fifth century, found Buddhism flourishing in Northwest India. He mentions particularly the profuse patronage of the four great *stūpas* at Taxila. Sung-yun mentions the Hephthalite ravages of Gandhāra in the early sixth century, from which the Buddhist culture never revived. See Beal, vol. 1, pp. xcix–c.

Although the grapevine and dionysiac motives related to the Yakshas disappeared in northwest India after the fifth century, numerous silver vessels of Iranian or more probably Central Asian manufacture, generally termed late-Sasanian, display the vine scroll or vine tree together with unusual variations on dionysiac themes.¹²⁸ None of these have Buddhist connections, but we may surmise that there may have been some influence upon their imagery, either directly or indirectly, from Kushān tradition. The running vine motive is found in the architectural decoration at Pyandjikent in Sogdiana as late as the seventh century.¹²⁹ Grapes and vine tree motives also appear in Manichaean manuscript illustrations from Central Asia, and grapes, like melons, were probably considered a Fruit

of Light, since they are shown together as an offering in a fragmentary illustration of what is thought to be a Manichaean Bēma festival.¹³⁰ A Manichaean painting from Bāzāklik shows a fantastic tree with a triple trunk growing from a large basin, with large grape clusters hanging from its foliage, which must be a Tree of Life.¹³¹

In T'ang China, where the art of wine-making had been introduced from Central Asia during the seventh century, the auspicious vine is commonly found on Lion-and-Grape mirrors.¹³² Within Central Asian Buddhism, however, there is little evidence for the continuity of the earlier dionysiac themes of the Kushān era, except for the notable inclusion of the grape cluster as an attribute of Avalokiteśvara at Tun-huang.¹³³

relatively short period of time which was certainly not enough to obliterate the Indian image of the Kushān lord as Kubera-Vaiśravaṇa (W. Spink, *Ajantā and Ghatotkacha: a Preliminary Analysis*, *Ars Orientalis*, vol. 6, 1966, pp. 142 ff., pl. 1).

¹²⁸ I. I. Smirnov, *Vostochnoe Cerebro*, St. Petersburg, 1909. See pl. XXXVII, 66, pl. XLIV, 77, pl. XLV, 78, pl. LII, 86, pl. LXV, 109. See especially pl. LXV, 110, and pl. LXVI, 113, (the flanges on top of the handles of both vessels show a bearded *silenus* bust with cup or rhyton, not unlike the representation on the medallion of the amphora from Khotan).

¹²⁹ A. Belenitski, *Skulptura e svezopece dryev-nevo Pyandshekenta*, Moscow, 1959, pp. 121-125, figs. 20, 21, 22, and 24.

¹³⁰ A. von Le Coq, *Buddhistische Spätantike*, vol. 2, *Die manichaeischen miniaturen*, Berlin, 1923, pl. 85, a (a fragmentary illustration of a ceremony in which a bowl of melons and grapes appears as an offering); pl. 85, b (an illustration

of scribes under trees with hanging grape clusters). See also G. Widengren, *Mani and Manichaeism*, London, 1961, p. 105.

¹³¹ A. Grünwedel, *Alt-Kutscha*, Berlin, 1920, p. 176, fig. 66. J. Hackin, *Recherches archeologiques en Asie Centrale*, 1931, Paris, 1936, pp. 19-21, pl. 1, pl. XII, pl. XIII, a and b.

¹³² S. Cammann, *The Lion-and-Grape Patterns on Chinese Bronze Mirrors*, *Artibus Asiae*, vol. 16, 1953, pp. 265-291. Cammann sees Manichaean influence in the mirror motives. Wine making was introduced to China c. 640 A.D. from Turkestan; cf. B. Laufer, p. 232.

¹³³ See A. Waley, *A Catalogue of Paintings recovered from Tun-huang by Sir Aurel Stein*, London, 1931, pp. 54-59, no. XXXV; A. Stein, *Serindia*, Oxford, 1921, vol. 4, pl. LXIII; *Old Chinese Art*, ed. T. Misugi, Osaka, 1961, no. 63 (a silk painting from Tun-huang of a standing thousand-armed Avalokiteśvara in the Hakutsura Museum, Kobe).

NEW INSCRIPTIONS FROM AJAṆṬĀ

By M. K. DHAVALIKAR

A LARGE NUMBER OF INSCRIPTIONS, INCISED and painted as well, have so far been noticed in the Buddhist rock-cut cave temples at Ajaṇṭā (District Aurangabad, Maharashtra State, India), and they have also been adequately documented by eminent authorities. However, some inscriptions have recently been discovered at Ajaṇṭā by Dr. Walter Spink and his Research Associate, Mr. Suresh Jadhav. They were placed at my disposal for reading and editing by Dr. Spink, who also supplied me with photographs of them. They have been deciphered from the photographs, and I have also checked the readings on the spot. Of the seven inscriptions which have been edited here, two occurring in Cave 10 are ascribable on the basis of palaeography to about the second century B.C. while four belong to about the fifth and sixth centuries A.D. Traces of painted records have also been noticed by Dr. Spink and Mr. Suresh Jadhav in Caves 19 and 21. They are, however, very fragmentary, and since they have been considerably damaged they defy any attempt at decipherment. The last, but not the least important, is an inscription which though of a comparatively recent date is significant inasmuch as it supplies us with the name of one of the discoverers of Ajaṇṭā, who was as yet unknown to the world, and also the probable date of his first visit to the caves.

THE INSCRIPTIONS

Number 1

This record has been incised in large, bold characters in Cave 10 which inciden-

tally is the earliest cave at Ajaṇṭā. It is dated to about the second century B.C. on the basis of the architectural evidence and this has amply been corroborated by the evidence furnished by inscriptions. The present inscription is incised on the wall of the left aisle of the hall, just below the space between the first and the third rib. It is in early Brahmi script and the language is Prakrit. It consists of a single line and occupies an area of 30¹/₂ inches in length and 3 inches in width. The size of the letters varies from 2¹/₂ inches to 3 inches. They are extremely well-cut characters with sharp, angular forms, and as such the record compares favorably with the two early inscriptions at Ajaṇṭā. However, the cursive forms of *ha* and *da* are noteworthy. Palaeographically, therefore, the inscription can be dated to the latter half of the second century B.C.

The inscription records the gift of the wall by Kanhaka who was a resident of Bāhaḍa. Here the personal name Kanhaka is rather curious, for usually we come across the form Kanha (Krishṇa) in the early western Indian cave inscriptions. But at the same time it should be noted that personal names ending in *ka* also occur in early inscriptions.¹

The word *Bāhaḍa*² occurring in the record is in all probability a place name. It

¹ Cf. *Sivaka*; Epigraphia India, *Luder's List*, vol. 10, 1909-10, Inscription no. 1209.

² The ancient name of Bahāl was Bahālaka. Even Valkh, occurring in 5th century records, may also be the same as Bahāl. See V. V. Mirashi, *An Ancient Dynasty of Khandesh*, Nagpur Univer-

can be identified with present Bahāl, a tiny village on the right bank of the river Girna in Chalisgaon Taluq of Jalgaon District, Maharashtra. The village has an impressive mound of ancient ruins which was excavated in 1952 and 1957 by Mr. M. N. Deshpande of the Archaeological Survey of India, and the evidence shows that the place was fairly well inhabited before and after the Christian Era.³ A hoard of silver punch-marked coins was also found at Bahāl some time ago.⁴ It is no doubt indicative of the antiquity of the place. As the crow flies, Bahāl is about 50 miles west of Ajañtā. It appears to have been an important center on the ancient trade route coming from Ujjain in the north. After crossing the Narmada and arriving at the ancient town of Bahāl, the caravans then went either south to Pratiṣṭhāna (Paithan, District Aurangabad), or west to Nasik. Those who went to Pratiṣṭhāna climbed the Indhyadri range in the vicinity of Ajañtā.⁵

The inscription was formerly completely covered by a thick coat of mud plaster. It came to light after peeling off the plaster. It is indeed enigmatic and shows that when the cave was first finished it was devoid of painted murals. The present inscription records the gift of the wall.

sity Journal, no. 10, 1944. Bahāḍagojaṭīranatana, probably a place name, occurs in a Bharhut pillar inscription (now in the Indian Museum, Calcutta). See *Luder's List*, Inscription no. 721.

³ Indian Archaeology, 1956-57, *A Review*, pp. 17-19.

⁴ S. N. Chakravarti, in the *Journal of the Bombay Branch of the Royal Asiatic Society*, vol. 20, 1945, p. 85 ff.

⁵ M. N. Deshpande, *The Rock-cut Caves of Pitalkhora, Ancient India*, no. 15 (1959), p. 69.

If it was then intended to be adorned with paintings there was no need to smooth the wall surface. It therefore appears that the cave, which was finished in the second century B.C., was embellished with paintings sometime in the first century B.C. This surmise gains support from the stylistic evidence of the horizontal panels bearing painted patterns on the upper portions of the shafts of pillars in the hall. The middle portions of the pillars were utilized by the Mahāyānists to paint the images of standing Buddhas in the fifth and sixth centuries A.D. But in a few cases they left the upper portions untouched, and it is here that we find the remains of earlier paintings. They are comprised only of decorative bands containing floral patterns which are stylistically akin to those in the Sanchi reliefs of the first century B.C. Thus the stylistic evidence points to the early paintings in Cave 10 as being of the first century B.C.

SEE FIGURE 1

Kanhakasa Bāhaḍasa dānam bhiti

"The gift of wall by Kanhaka of Bāhaḍa."

Number 2

This inscription occurs in Cave 10 in the left aisle. It is painted in white on the greyish rock surface of the third rafter between the façade arch and the first rib. The record is in two lines, written in early Brahmi script. The language is Prakrit. In the photograph, the first letter of both the lines is not seen as it has been overshadowed.

owed by the wire mesh of the façade. The first line is 13 1/2 inches long while the second is 15 inches long, and the average height of the letters is 2 1/2 inches. The record has been considerably damaged. This is, in the main, due to the extremely rough rock surface. The reading is further rendered difficult by brownish patches in the stone. However, the letters that still survive do help us in knowing the object of the record. The characters are of quite an early variety and compare well, palaeographically, with the other records in the cave.

It should be noted that the record does not specify the nature of the gift. The other two inscriptions in this cave record the grant of the façade and the wall respectively. The present inscription is not incised, but is painted in white over the rock surface. Since it occurs on a rib of the ceiling, it may mean that the ceiling was the gift of the donor, Dhamadeva (Dharma-deva). But if we take the word *pasāda* (*prāsāda*) to mean the hall (literally "palace") then it may probably be taken to imply that much of the finishing work of the cave was due to the munificence of this Dhamadeva.

The second word of the first line starts with some letter resembling *pa*. The second letter is not visible while the third, which is not clear in the photograph but which I could make out on the spot, appears to be *tha*. From this we can reconstruct the word as *pa-tha na sa* which in all probability represents the place where the donor resided. Pa-i-tha-na is the Prakrit form of Pratiṣṭhāna (modern Paithan near Aurangabad) which was the capital of the Satavahanas on the banks of the Godavari.

SEE FIGURE 2

1. *Dhamadevasa (pa)-(tha) nasa*
2. *pasādo (dā)na pavajita*

"By the grace of Dhamadeva (Dharma-deva of Paithan), the gift for the ascetics."

Number 3

The record occurs in the main hall of Cave 11, to the right of the shrine door, below the throne of the seated Buddha, between his feet. (See *figs. 16 and 17* in article by W. Spink in this issue of *Ars Orientalis*.)

The inscription is a votive record in four lines. It is painted in black over a dark green painted surface. The writing covers an area of about 4 inches in length. The individual letters are about 1/4 inch to 1/2 inch in height, although conjuncts and consonants with vowel marks are bigger in size. The letters in the first two lines are well spaced and well written while those in the last two lines, though well written, appear to be crowded. The state of preservation of the record is not quite satisfactory as some of the letters here and there, particularly many in the third line, are damaged. The characters of the inscription closely resemble those of the Vākātaka records at Ajaṇṭā.

The inscription is written in Sanskrit and its orthography resembles that of the contemporary Vākātaka records. Consonants following *r* have often been reduplicated. There are some orthographical errors such as *mātāpitro* in the fourth line for what should have been *mātāpitroh*.

The object of the epigraph is to record that the painted image below which the inscription is painted was the gift of a person, Mitradharma by name.

The epigraph begins with a damaged *Siddham* symbol. This is followed by two sentences of which the first states that the object on which the inscription is painted, the image of Buddha, was the *deya-dharma* or the gift of a person named Mitradharma who was a lay worshipper (*upāsaka*).

The second sentence, with which the record ends, states in the usual Mahāyāna style, that the merit accruing to the pious act of Mitradharma was meant for the attainment of the supreme knowledge by all sentient beings including his parents and others.

Paleographically, the record can be ascribed to the latter half of the fifth century A.D. Since the inscription occurs on the painted panel in the cave, it can certainly be said that the cave was more or less finished in the latter half of the fifth century.

SEE FIGURE 3

1. [*Siddham*] [*I*] *deya-dharmmo=yam upā*
2. *saka [sya] Mitradharmmasya [I]*
3. *yad=atra puṇyam tad=bhava [tu]*
4. *mātā-pitro [:] sarvva-satvā (ttvā) nān=cha*

Number 4

The record is painted in white on the dark green surface on either side of the portion below the lion throne (*śiṃhāsana*) of a Buddha in Cave 22. The image is sculptured on the back wall of the hall on the right of the entrance to the shrine. The sculptured panel still retains, to a considerable degree, its original plaster and paint. The footstool (*pāda-pīṭha*) is in the shape of a lotus with its stem held by two *nāga* kings. The inscription is painted in two lines, with each line being started on the left of the lotus and continued on the right side. Both the lines are written in the same manner. On the left, the inscription covers an area of 4 1/2 inches long and 2 inches broad, and on the right 8 inches long and 1 1/2 inches wide. The average height of the letters is 1/2 inch although the conjuncts and consonants with vowel marks are larger in size, measuring about an inch.

The inscription is written in Sanskrit and its orthography resembles that of the epigraph found some time back in Cave 4 at Ajaṇṭā.⁶ The latter has been assigned by D. C. Sircar, on palaeographical grounds, to the first half of the sixth century A.D. The present record, therefore, also can be assigned to that period.

Orthographically the inscription resembles the other Mahāyāna records at Ajaṇṭā. Consonants following *r* have been reduplicated. There are some orthographical errors such as *mātāpitro* in the first line on the right for *mātāpitroh*.

The object of the inscription is to record that the sculptured and painted image of Buddha below which the record occurs was the gift of the *Śākya* monk, Dha(rma)deva by name. The record is in two lines and the *Siddham* symbol might probably have been there in the beginning, but now it is

⁶ *Epigraphia India*, vol. 33, 1959-60, pp. 259-262.



FIG. 1.—AJAṆṬĀ. CAVE 10. INSCRIPTION ON LEFT WALL. Photograph, Asian Art Archives, University of Michigan (hereafter referred to as AAA, 26, 312).



FIG. 2.—AJAṆṬĀ. CAVE 10. INSCRIPTION IN LEFT AISLE (AAA, 26, 313).



FIG. 3.—AJAṆṬĀ. CAVE 11. INSCRIPTION ON REAR WALL (AAA, 20, 242).



FIG. 4 a.—AJAṆṬĀ. CAVE 22. INSCRIBED BUDDHA ON REAR WALL (AAA, 20, 322).



FIG. 4 b.—AJAṆṬĀ. CAVE 22. DETAIL OF LEFT HALF OF INSCRIPTION (AAA, 20, 341).



FIG. 4 c.—AJAṆṬĀ. CAVE 22. DETAIL OF RIGHT HALF OF INSCRIPTION (AAA, 20, 342).



FIG. 5.—AJAṆṬĀ. CAVE 9. INSCRIPTION ON RIGHT WALL (AAA, 20, 182 [detail]).



FIG. 6.—AJAṆṬĀ. CAVE 16. INSCRIPTION ON RIGHT WALL (AAA, 26, 311).



FIG. 7.—AJAṆṬĀ. CAVE 10. INSCRIPTION ON PILLAR 13 R.
Photograph courtesy of G. Tarr.

not visible. The epigraph consists of two sentences; the first states that the object on which the inscription is painted, the image of Buddha, was the *deya-dharma* or the gift of a person named Dha(rma)deva who was a *Śākya* monk (*bhikṣu*). The second sentence, with which the record ends, states in the usual Mahāyāna style that the merit accruing to the pious act of Dharmadeva was meant for the attainment of the supreme knowledge by all sentient beings including his parents and others.

SEE FIGURES 4 A, B AND C

Left Half: 1. [*Siddham*] [*I*] *deya-dharmmo=yam śākya-*

Continuation on right: *bhi(kṣo)r=bhadanta*
Dha[rma]devasya[I]
mātā-pitro[:]

Left Half: 2. -*dasyaya [d=atra] pu*

Continuation on right: [*nyam tad=bha*] *vatu-*
chā(nutta-(rājñanā)
vāptaye [I]

Number 5

This inscription occurs on Cave 9's triforium, above the ninth pillar on the right. It is painted in black upon the white ground between the lotus pedestals upon which two nearby figures stand. The inscription covers an area of 9^{1/2} inches by 3^{1/2} inches. It is, however, much damaged and many letters are now missing. The average height of the letters varies from 1/2 inch to 1 inch. The inscription consists of three lines while there are traces of some letters in the fourth line.

The inscription is written in Sanskrit and its orthography resembles that of other donative records in the later group of caves at Ajaṇṭā. The object of the epigraph is to record the gift of the painted image of Buddha below which it occurs. It was the usual Mahāyāna formula which also occurs in inscriptions Numbers 3 and 4 above. It records that the painted Buddha image was the gift of a monk (*bhadanta*) (*Go*)*pīputra*, and that the merit accruing to his pious act was meant for the attainment of the supreme knowledge by all sentient beings including his parents and others.

Palaeographically, the record resembles Number 4 above and can therefore be assigned to the first half of the sixth century.

SEE FIGURE 5

1. [*Siddham*] [*I*] *deya-dharmmo=yam*
[bhadanta] [Go] pī
2. *putrasya [I] yad=atra (punyam)*
tad=bhava
3. *vatu mā(tāpitroh) sarva-sattvā-*
(nān)
4. *cha [I]*

Number 6

The inscription occurs in the main hall of Cave 16 on the right wall between the second and the third cell. It is at a height of 4 feet 9 inches from the ground, almost at the eye level. It is engraved on a fragmentary painting which still remains unidentified and is painted in between the panels showing Sujata offering food to the Buddha on the left, and the scene showing young Siddharta going to school, on the

right. The space occupied by the inscription measures about $5\frac{1}{2}$ inches in length and about $1\frac{1}{2}$ inches in width. The characters have been very finely and thinly incised on the dark-green surface of the wall. The inscription was probably scratched after the painting of the panel was complete.

The language of the record is Sanskrit and the script can be said to bear a striking resemblance to the characters of the Vishnukundin charters. All the letters display peculiarities of the Vishnukundin script which was the Brahmi alphabet of the southern variety.⁷

The record is so short that it has not many orthographical peculiarities. However, it must be mentioned that an orthographical error has been committed by the engraver in the second half of the epigraph. Thus for the letter *tra*, *stra* has been written. There is a double *daṇḍa* at the end of the first and the second word.

The record can be ascribed to the end of the fifth century or the beginning of the sixth century A.D. on paleographical grounds. It is, however, difficult to be precise on this point as the chronology of the Vishnukundins is a matter of great controversy.

SEE FIGURE 6

Sri Yugadhara Sūtra (tra) dhāra
“(Sri Yugadhara, the *Sūtradhāra* the architect)”

The inscription thus gives the name of one Yugadhara who was the architect of the cave. The record is unique in the sense

⁷ Cf. C. Sivaramamurti, *Indian Epigraphy and South Indian Scripts* (Madras, 1952), pl. I.

that it supplies us for the first time with the name of a master-artist of Ajaṇṭā.

Number 7

Though of recent date, this is an extremely interesting inscription from Ajaṇṭā. It occurs on the front face of the 13th pillar in the hall of the Chaitya Cave no. 10. The letters are scratched on the surface of the painted panel showing a standing Buddha. It occurs at a height of 7 feet 5 inches from the floor of the cave. The cave was possibly full of debris when the inscription was scratched and that is why it was possible to write the record at such a height. Thus, there must have been at least two or three feet of debris in the cave at that time.

The record is in two lines. Before discussing its significance, we shall give the text:

John Smith 28[th] Cavalry
28 April 1819

The characters of the inscription appear to have been scratched by some sharp, pointed instrument, such as a nail. The first line is 8 inches long while the second is 4 inches long. The capital letters measure an inch in height and the rest are about $\frac{1}{4}$ inch in size.

The inscription mentions the name of one John Smith, an officer of the 28th Cavalry who visited the caves on 28th April, 1819. He is therefore one of the earliest visitors to the caves after they fell into disuse sometime in the eighth century and were consequently consigned to oblivion. It would not be far fetched if we take him to be the discoverer of Ajaṇṭā. According

to the local tradition, some British army officers were passing through the Ajaṇṭā ghat on their way north from the Decan.⁸ One of them, interested in big game hunting, asked the villagers about the possible abodes of tigers. A cowherd is then supposed to have brought that officer to the spot which is now known as the View Point, facing the caves, on the other side of the ravine. From there the officer was able to see the façade of Cave 10. Attracted by the carving on the façade, he visited the cave. This, in short, led to the discovery of Ajaṇṭā. There is nothing to

doubt the authenticity of the story and, on the basis of the evidence from the present record, we might dare to suppose that this John Smith was the officer who figures in the legendary account. The inscription appears to support both the legend and the published reference and to confirm the date of the discovery of the caves.

SEE FIGURE 7

⁸ The first Europeans to have visited the Ajaṇṭā caves were some officers of the Madras Army in 1819. See *Transactions of the Bombay Literary Society*, iii, p. 520 (cited by Fergusson and Burgess, *Cave Temples of India*, pp. 284–285).



FIG. 1 b.—LEFT SIDE OF PĀLIKHĒRĀ BACCHANALIAN GROUP.



FIG. 1 a.—RIGHT SIDE OF PĀLIKHĒRĀ BACCHANALIAN GROUP.
Mathurā Museum. Photo courtesy of John Rosenfield.



FIG. 2.—MAHOLI BACCHANALIAN GROUP. Mathurā Museum.



FIG. 3.—STONE TRAY FROM SWAT. Photo courtesy Archaeological Survey of India. Taken from MASI, no. C 4, *Excavations in Swat and Explorations in the Oxus Territories of Afghanistan*, pl. VIII, no. 4 (no. 21).



FIG. 4.—DIONYSIAC SCENE. LAHORE MUSEUM. Courtesy Islay Lyons and Harold Ingholt. Taken from *Gandharan Art in Pakistan*, no. 397.



FIG. 5.—WINEMAKING SCENE. PESHAWAR MUSEUM. Photo courtesy of Islay Lyons and Harold Ingholt. Taken from *Gandharan Art in Pakistan*, no. 175.



FIG. 6.—BACCHANALIAN SCENE ON STATUE BASE. Lahore Museum.



FIG. 7.—TRIANGULAR RELIEF WITH ICHTHYOCENTAUR COUPLE. Lahore Museum. Photo courtesy of John Rosenfield.



FIG. 8.—RELIEF OF MITHUNA COUPLE
FROM AMIN. Courtesy Archaeological
Survey of India. Photo from A.
Coomaraswamy, *Yakṣas*, Part I, pl. 7.



FIG. 9.—RELIEF OF BACCHANALIAN NĀGAS. Photo courtesy British Museum.



FIG. 10.—RELIEF OF SEATED GANDHĀRAN
PĀÑCIKA. Photo courtesy British Museum.



FIG. 11.—PĀÑCIKA AND HĀRITĪ. British Museum.
Photo courtesy British Museum.



FIG. 12.—TUTELARY COUPLE. British Museum.
Photo courtesy British Museum.



FIG. 13.—SILVER BOWL FROM TAXILA. British Museum. Photo courtesy British Museum.



FIG. 14.—CLAY SEAL FROM TAXILA. Photo taken from J. Marshall, *Taxila*, vol. 3, pl. 208-59b.

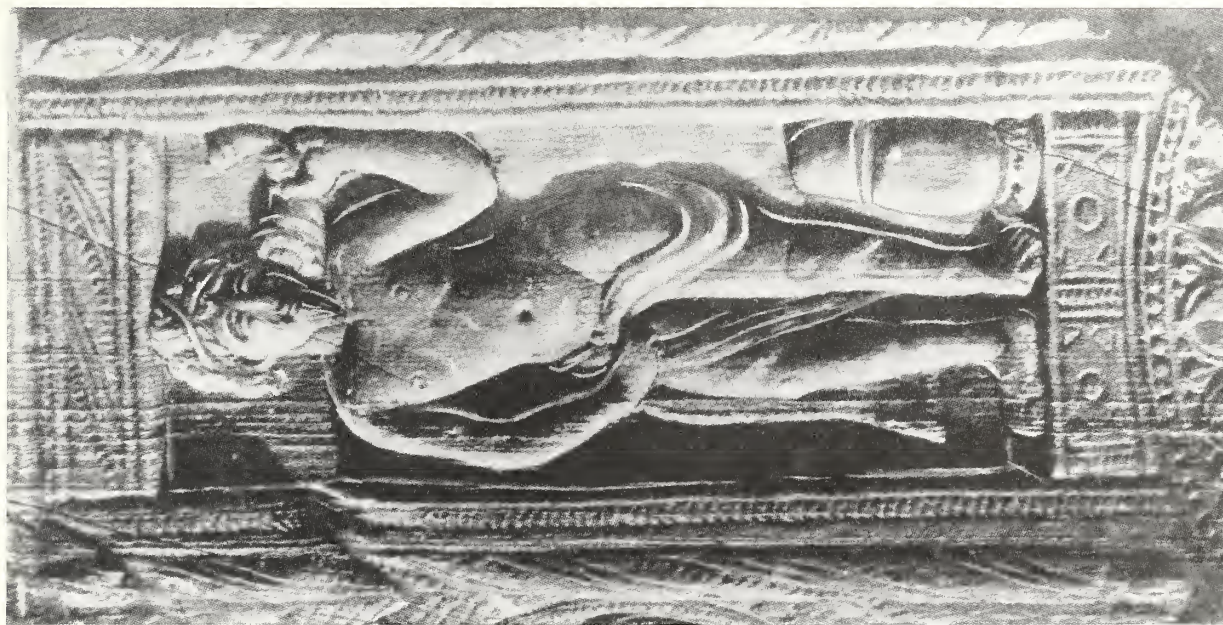


FIG. 15.—RELIEF OF DIONYSIAC FIGURE FROM NĀGĀRJUNAKOṆḌA. Photo from MASI, no. 54, A. H., Lohmeyer, *The Buddhist Antiquities of Nāgārjunakōṇḍa*, pl. X, d.



FIG. 16.—WARRIOR FIGURE FROM BHARHUT. India Museum, Calcutta. Photo from A. Coomaraswamy, *Sculpture of Bharhut*, pl. XVII, no. 43.

AJAṆṬĀ'S CHRONOLOGY: THE PROBLEM OF CAVE ELEVEN

BY WALTER SPINK

ART HISTORIANS HAVE TRADITIONALLY assigned many of the Mahāyāna paintings at Ajaṇṭā to the seventh century A.D. or even later; but epigraphists have seldom concurred with this view. No epigraphist, to my knowledge, has considered any of the site's painted or incised donative records to be later than the sixth century A.D.¹ Instead, they have contended that the donative records belong partly to the last half of the fifth century and partly to the sixth century.²

No one can dispute the first part of this proposition, since the Vākāṭaka king Harisheṇa, who was flourishing around A.D. 475, is mentioned as the reigning monarch in the dedicatory inscriptions of Cave 16 and Cave 17.³ But the second part of the proposition might be questioned; for it seems that the criteria upon which so many of Ajaṇṭā's records have been assigned to the sixth century are subject to dispute.

Admittedly my attitude is conditioned by the fact that I do not believe artistic

activity continued at the site after about A.D. 500, as I have argued at length elsewhere.⁴ If this hypothesis is true, the records could obviously not belong to the sixth century, since they are generally associated with the gifts of images.

I am now encouraged in my theories by the fact that my friend Dr. M. K. Dhavalikar, working independently, has assigned an important newly discovered inscription in Cave 11 to this period.⁵ His view has been supported at least tentatively by two eminent authorities, Dr. V. V. Mirashi and Professor P. R. Srinivasan, both of whom have been kind enough to study a photograph of the record. Admittedly none of these three scholars has agreed that *all* Ajaṇṭā Mahāyāna records can be assigned to the fifth century; nor are any of them dogmatic about their attribution. But perhaps their present opinion is sufficient to suggest that the question of the development of epigraphy at Ajaṇṭā deserves reconsideration, because the paintings in Cave 11 with which this new inscription is

¹ Bühler, some hundred years ago, allowed the possibility of inscriptions continuing into the early 7th century. But even he seems to prefer a late sixth century terminus. He states that the letter forms of the incised donative records in Cave 26 "probably belong to the latter half of the sixth or beginning of the seventh century A.D.—(and) come very close to the inscriptions in Cave 16 and 17—(which) probably (belong) to the end of the fifth or the beginning of the sixth century A.D." Bühler's opinions are here quoted from J. Burgess, *Report on the Buddhist Cave Temples and Their Inscriptions*, Archaeological Survey of Western India, vol. 4, London, 1883, pp. 128–133.

² A long incised record which appears between Cave 26 and Cave 27 dates from the Raṣṭrakūṭa period (see G. Yazdani, *Ajaṇṭā*, 4 parts, Oxford, 1930, 1933, 1946, 1955; part 4 (text), pp. 121–124). However, there is no evidence that it is a donative record.

³ Harisheṇa's regnal period is not precisely known but probably falls at about A.D. 465–490. See W. Spink, *Ajaṇṭā to Ellora*, Bombay, 1967, pp. 1–2.

⁴ W. Spink, *Ajaṇṭā and Ghatotkacha: a Preliminary Analysis*, *Ars Orientalis*, vol. 6, pp. 135 ff.

⁵ See Dhavalikar, *New Inscriptions*, *Ars Orientalis*, vol. 7, fig. 3.

associated appear to be among the very latest at the site (*fig. 17*).

If it is true that the Cave 11 inscription is a late fifth-century inscription, and if it is also true that the paintings associated with it belong to Ajaṇṭā's latest moment of artistic production, then one would have to conclude that *all* of Ajaṇṭā's latest paintings should date from about the late fifth century, and that donative inscriptions integrally associated with them must also be assigned to this period. To negate this conclusion, one would either have to reject the fifth-century dating of the inscription or else reject the theory that the Cave 11 paintings belong to Ajaṇṭā's very latest years of patronage. In the present paper I shall try to justify this late dating of the paintings in the interior of Cave 11. I must leave it to paleographers to decide if the (presumed) sixth-century inscriptions elsewhere at the site can be re-assigned to the late fifth century, as I would hope.

Of course, it is possible that paleographic distinctions of such precision cannot be made with any real assurance in the particular case of Ajaṇṭā's Mahāyāna phase because of the nature of the problems involved. If this is so, it is important that it be stated; for in the end, we may have to rely upon other criteria to determine the upper limits of activity at the site. We may have to rely on the *content* rather than the letter forms of the epigraphic documents, piecing together the probable history of the site from a study of the development of its art forms and from our scanty knowledge of the political circumstances of the region during and just after the late Vākātaka phase.

The paleographic situation in Ajaṇṭā's Mahāyāna phase is an anomalous one, a fact which has perhaps not been sufficiently recognized, for no really thoroughgoing study of the whole body of these Mahāyāna records has yet been made. Admittedly, significant differences can be seen between records such as that in Cave 16 and that in Cave 26, and it is clear that the latter is more developed. This has been recognized and stated by various epigraphists and is a view which would seem to be confirmed by the generally recognized difference in the character of the excavations themselves. But how can we gauge the speed of this paleographic development? Could it not have occupied merely the course of a few decades rather than the course of a number of generations, as has been generally supposed? There are no significant sixth-century records at nearby sites to which the latest Ajaṇṭā inscriptions can be compared.⁶ Nor are there any Vākātaka inscriptions elsewhere in India which belong to the period of Harishena or to the time of his immediate successors, if such

⁶ There is only one donative record from this general region which can be assigned with fair assurance to the sixth century A.D. It appears in a quite damaged condition beneath an image of Lakulisa in Ellora Cave 19, a cave which must have been undertaken by the Kalachuris at about A.D. 550 (see W. Spink, *Ellora's Earliest Phase*, Bulletin of the American Academy of Benares, vol. 1, November, 1967, pp. 11-22). The inscription was discovered by Suresh Vasant Jadhav and impressions taken, but it has not yet been published. P. R. Srinivasan has been kind enough to attempt a reading and states that "all that can be deciphered tentatively from the impressions are some proper names such as Bhā[r]gava, Pāchayana and Dharan[idha]raṇa" (in communication to the author, dated October 1, 1964).

successors indeed existed.⁷ In the absence of such guideposts, how can one be certain that the development of paleographic forms in this particular region at this particular time proceeded at a "normal" pace? Ajaṇṭā was a site which developed under a very varied patronage, receiving donations from journeying merchants and pilgrims as well as courtiers and monks and local devotees. Artists and scribes must have been drawn in large numbers from very distant regions. This welter of both patronage and production is probably responsible for the fact that there is little formal consistency in the treatment of the letter forms of the different inscriptions, even when they apparently are close in date. A similar observation could be made about the treatment of the paintings at the site which prove to be the work of many different hands. Some artists were careless, some careful, some conservative and some advanced. In such a period of urgent progress and ready assimilation of ideas and influences, we might well expect to find a rapid evolu-

tion and a variety of trends in the treatment of letter forms just as we do in the forms of art.

One other factor might be considered. Even while asserting that a distinct differentiation can be made between the earlier and later Mahāyāna letter forms at the site, paleographers have generally limited the span of time covered to approximately fifty years.⁸ Now it stands to reason that within a space of so few decades, a space easily bridged by the life of a single man, various factors can complicate the paleographic picture. In writing today, I use letter forms which I learned about 1935, e.g. *Ṭ, E, F, G*. My parents, in writing today, use letter forms which they learned a generation earlier, around 1910, e.g. *Ṭ, E, F, G*. Essentially neither their style nor mine has changed, so that in 1968 we are writing in "1935" and "1910" styles respectively. Was the situation so different in the fifth century? Does not the paleographic form (and thus the presumed date) of the inscription depend to a certain de-

⁷ Following V. V. Mirashi (*Historical Data in Dandin's Daśakumaracarita*, in *Annals of the Bhandarkar Oriental Research Institute*, vol. 26, 1945, pp. 20-21), I have postulated the reign of Harishena's son for a short period prior to the break-up of Vākāṭaka power (see W. Spink, *Ajaṇṭā and Ghatotkacha*, pp. 135-136). But we have no inscriptions from his (presumed) reign; nor is there evidence that Vākāṭaka power was ever restored after about A.D. 500. The old theory that the marriage of a Vākāṭaka princess to the Vishṇukūṇḍin *Mādhavavarman* took place in the sixth century is no longer tenable, since recent studies suggest that *Mādhavavarman* was ruling around A.D. 468-518. See Rama Rao, *New Light on the Vishṇukūṇḍins* in *Proceedings of the 27th Indian History Congress*, Allahabad, 1965; see also S. Sankaranarayana, *New Light on the Genealogy and Chronology of the Vishṇukūṇḍins*,

Journal of the Oriental Institute, Baroda, vol. 16, no. 4, June, 1967.

⁸ Even Bühler (see footnote 1) appears to have admitted this possibility, although his statements can also be read as allowing a 150 year span. Recently a span of a century or more has been suggested by W. Begley (see Begley, *The Chronology of Mahāyāna Buddhist Architecture and Painting at Ajaṇṭā*, unpublished dissertation, University of Pennsylvania, 1966, pp. 48-49). Begley dates certain inscriptions (e.g. Cave 26 donative record) on paleographic grounds to the last half of the sixth century. His late-sixth century dating of certain excavations and images at Ajaṇṭā is based upon this premise. We would question this premise but, even in doing so, must admit that Begley has considered the matter carefully and has consulted with a number of eminent epigraphists before reaching his conclusions.

gree upon the age of the writer, a factor which can generally not be determined in ancient records.

Of course, such an observation in no way changes the fact that over a given period of time any random sampling of letter forms will tend to show a definite development. But it does suggest that in any *particular* comparison one cannot be too dogmatic about the relative dates of the inscriptions compared, for at any given point in time we should expect a coexistence of individual—indeed older and younger—styles. Can we really say, with Sircar, that the short painted inscription on the Buddha's throne in Cave 4 belongs to the first half of the sixth century, and is thus significantly later than the long and prestigious rock-cut inscriptions in Cave 16 and Cave 17?⁹ The *letter style* of the Cave 4 record may be later, but the writer *may* have merely been a younger contemporary of the other scribe. Indeed, the scribe chosen to cut a courtly record such as that of Cave 16 would quite possibly be an established and prestigious (and therefore older) craftsman. Is it not conceivable that the two records are actually contemporary or (as I would prefer to believe on the basis of other criteria) only some 20 years apart in time?

Such arguments can of course be used in two ways. The Cave 11 record in question might (by the same token) be a rather

late production by an older and conservative scribe; and years before either he or a contemporary could have inscribed the somewhat similar records in Caves 16 and 17. I am only proposing that it is difficult to arrange inscribed images or caves at the site in any kind of absolute sequence on the basis of paleography. The distinctions that we wish to make are too fine—the time span under consideration is too short—for paleography to be anything more than a *suggestive* guide. Since we are dealing not with differences of centuries but with differences of decades, paleographic observations may confuse the problem as much as clarify it. Art historical factors such as location, state of completion, changes in iconography reflecting changing ritual needs, changes in decorative motifs reflecting changing predilections of the patrons—these are surer bases upon which to judge the site's internal development and to place it in relation to the few fixed chronological reference points in the late fifth century (e.g. Cave 16, and Ghaṭotkacha inscriptions) with which history has provided us.¹⁰

Let me return to the problem of the style and date of the Cave 11 paintings with which the newly discovered inscription is associated. If the inscription can indeed be proved to belong to the late fifth century, it is obviously of great interest to determine the relative position of the

⁹ D. C. Sircar, *Inscription in Cave 4 at Ajanṭā*, in *Epigraphia Indica*, vol. 33, pt. 6, sec. 49, pp. 259–262.

¹⁰ The fact that the earliest productions of the Mahāyāna phase at Ajanṭā provide us with relatively few inscriptions increases the problems, for we do not have a random selection of letter forms to compare with the numerous later rec-

ords. Furthermore, as mentioned above, the Cave 16 and Cave 17 records may well have been done by an older scribe, in a unconsciously retardatory style. It is even possible that such prestigious donative records were done in a consciously formal and perhaps slightly archaic mode; this is a common phenomenon even today in public or prestigious inscriptions.

paintings in the development of the site. As stated above, it is my contention that these paintings represent work of the very latest phase of Ajaṇṭā's patronage and thus can be seen as an upper terminus for activity at the site. This opinion is shared by Begley in his recent study of Ajaṇṭā's stylistic development, as well as by a number of other scholars with whom I have discussed the paintings at the site itself.¹¹

Some immediate objections may be anticipated in our attempt to date these paintings to the very latest phase of Mahāyāna activity, for Cave 11 has always (and rightly) been considered among the very first of the caves cut out during the site's Mahāyāna phase.¹²

Cave 11 underwent an unusual and very early development. But we shall attempt to prove that only the excavation as such and certain of its paintings belong to the early years of Ajaṇṭā's Mahāyāna phase. The paintings which are associated with the new inscription belong to a much later moment, possibly separated from the earlier paintings by as much as two or three decades.

There are a few other caves at Ajaṇṭā which show both very early and very late Mahāyāna forms, but none of them show quite such a distinct separation of the phases as Cave 11. Caves such as Cave 4

and the two-storied Cave 6 were begun very early and progressed so slowly that work was still going on when patronage at the site was finally interrupted.¹³ Cave 16 shows the addition of very late paintings (all representations of Buddha groups) on the rear wall and along the rear portion of the left wall of its interior, on surfaces which had been prepared for painting earlier but which were never actually adorned.¹⁴ Cave 19 shows the addition of shrinelets at either side of its court, which may have been planned from the beginning but were certainly not completed until very late. But *only* Cave 11, of all the Mahāyāna caves, provides a case where an already completed form or motif was reworked at a later date. This very fact is remarkable, for it helps to confirm the hypothesis that the total span of Mahāyāna patronage at the site was very short; otherwise we should expect to find many such examples of repair or reworking in other caves as well.¹⁵ The form in question

¹³ For a detailed analysis of the development of the plans of Cave 4 and 6, see Spink, *Ajantā and Ghatotkacha*, pp. 150–155.

¹⁴ The division between the earlier and the later phases on the left wall of the interior is clear, for the narrative scenes occupying the forward portion of the wall break off abruptly at about the mid-point, where some of the figures are incomplete.

¹⁵ In a few instances we do have situations where the plan of work was changed while in progress. In the ceiling of Cave 2 a *preliminary* design has been covered over. A standing Buddha panel in Cave 26 was cut over a preliminary sketch of a seated figure. On the left rear wall of Cave 2 a painted Buddha was crowded into the corner of an already completed Sravasti Miracle scene, while intrusive sculptured panels in the porch of Cave 4 and in Cave Upper 6 occupy areas which were presumably intended to show

¹¹ See Begley, *op. cit.* However Begley dates these Cave 11 paintings to the late sixth century because of his different view of paleographic developments at the site (see footnote 8).

¹² The view of Fergusson and Burgess (see J. Fergusson and J. Burgess, *Cave Temples of India*, London, 1880) that Cave 11 was actually a converted Hīnayāna excavation is of course no longer accepted; but their opinion does point up the fact that the excavation as such has many early and formative features.

is the main Buddha image; and as we shall try to show below, its two layers of decoration almost certainly correspond with the two phases of patronage of which other motifs in the cave give evidence.

The location of Cave 11 immediately suggests its relatively early date, for it is placed in the very midst of the Hīnayāna nucleus around which the site's Mahāyāna development began. Its plan (*fig. 1*) has been somewhat affected by its location, for the normal complement of cells has been omitted along its right wall, presumably because of the architect's fear of breaking into the nearby Hīnayāna Chaitya Hall, Cave 10. But the confusion of its plan, which includes an off-center placement of the shrine as well as a general lack of symmetry, is probably also due to the planners' inexperience in excavation during the first years of Mahāyāna patronage at the site. Such inexperience could also explain the anomalous character of the treatment of the porch balustrade, the clumsy form of the interior pillars and the unusual inclusion of rock-carved seats along the right wall of the interior and in parts of the porch (*figs. 2 and 7*). These are elements which find no currency in later excavations. On the other hand the porch pillars and pilasters are comparable with (and probably are the source of) similar elements in other early Mahāyāna caves at the site. The simple cell doors also relate the cave to other very early Mahāyāna excavations, while the simple format and the floral decoration (here painted) of the

paintings. But all such changes were made in normal course as work progressed and interests changed. They are in no sense repairs or reworkings of already completed areas or images, as is the case with the Cave 11 Buddha.

porch door (*fig. 4*) are also early characteristics.¹⁶ But perhaps the most striking early characteristic of the cave is the treatment of its still very undeveloped shrine where, as in other very early caves (Caves Lower 6, 16 and 17), one could circumambulate the Buddha image (*fig. 21*). Furthermore, the Buddha image is enthroned against a clearly defined monolithic stupa, which can be seen as one proceeds around the image (*fig. 22*). This idea of incorporating a stupa in the shrine area seems to be a very early one in the site's Mahāyāna development. The shrines of Caves Lower 6, 16 and 17, all of which were probably completed somewhat later than that of Cave 11, show no such stupa, while in still later shrines even the possibility of circumambulation is denied.¹⁷

The Buddha image in Cave 11 was completely carved, but the pradakṣhiṇapatha was never finished; one *can* move through it, but only with difficulty, for it has been left very rough at its lower levels (*fig. 21*). It seems evident that the first phase of work on the cave was broken off at just this point. If it appears curious that the pradakṣhiṇapatha was not finished during the later phase of work in the cave, the explanation is probably that modes of worship changed, making the renewal of work on the passage pointless; as mentioned above, none of the latest viharas at the site have pradakṣhiṇapathas in their shrines.

¹⁶ For a brief survey of the development of doorway forms at Ajanṭā, see Spink, *Ajanta and Ellora*, pp. 38–43.

¹⁷ The changing arrangements of shrine plans in the Mahāyāna caves at Ajanṭā are discussed in detail in Spink, *Ajanta and Ghatotkacha*, pp. 138 ff.

At the time when excavation work on Cave 11 was interrupted, a considerable amount of painting had already been done. This is not surprising; a review of painting procedures at the site would show that the painters always followed close on the heels of the excavators. For instance, they generally painted the porches while the cutting out of the interiors was still underway; and they often began the painting of the main hall while the shrine and lesser cells were still being excavated. This is easily discernible from evidence provided by many of the partly finished caves at the site.

Certain major painted elements in the porch are of a characteristically early type and, when compared with those of the interior hall, serve to confirm the division of the painting of the cave into two distinct phases. The ceiling (*fig. 2*), much damaged by smoke deposits and by someone's well-meaning attempt to clean it with a broom, is for all of its discoloration still a splendid example of the boldly executed but carefully organized early Mahāyāna-phase ceiling forms.¹⁸ It can be readily compared to ceilings such as those in the porch of Cave 17 or in the ambulatory of Cave 19. Later examples such as those in the unfinished interior of Cave 21, or even those in the interior of Cave 2, appear fussy and lacking in exuberance of design by comparison, for all of the fact that later ceilings incorporate new characteristics (panels with tiny human or yaksha figures, lavish use of expensive pigment, etc.) which

were calculated to impress. To give some impression of the splendid organization of the Cave 11 ceiling we reproduce here the central section (*fig. 3*), with its alternating floral and zoomorphic forms, ranged respectively upon a green and red "checker-board" pattern, the latter now so darkened that its colors can hardly be seen.

The Cave 11 porch ceiling, like all ceilings of the Mahāyāna phase at Ajaṇṭā, reflects structural prototypes. But it is interesting to note, as a kind of confirmation of the early date of the ceiling painting, that the artist is here concerned to "support" the painted transverse "beams" by means of atlantes painted at the points where the "beams" meet the porch's rear wall (*fig. 5*). Slightly later, in the porch of Cave 17, these atlantes are moved into the ceiling area itself, for they must have been considered as obtrusive elements which interrupted the painted panels planned for the wall surfaces. Still later, with a similar logic, they are omitted entirely—see for instance the painted ceiling of the porch of Cave 2.

The beautiful bodhisattvas (*fig. 4*) (now much obliterated) which appear on the rear wall of Cave 11's porch, on either side of the door, must also belong to this early phase of work. They were probably the first of these conventional pairs which flank so many of the major doorways at Ajaṇṭā. These great guardians, like those which remain in the porches of Caves 17 and 2 and in the interiors of Caves 1 and 2, stood against a now nearly obliterated background of rocks and vegetation and clouds. Fortunately just enough traces of the clouds remain at the very top of the wall to show that these motifs sometimes run ever so slightly up onto the ceiling,

¹⁸ The deposits were probably from the cooking fires of hermits who in some later century must have inhabited the cave. There are various painted symbols (including tridents) in the porch, which recall their presence.

overlapping the edge of the ceiling design.¹⁹ Thus we can be sure that the ceiling was underway and probably completed by the time the guardian panels were begun. This is as we should expect, for clear evidence in numerous other caves also shows that it was customary to complete ceiling areas before adjacent wall surfaces were decorated. This is not to say that such ceilings (which for practical reasons were painted first) belong to a separate earlier phase of work. Such an assumption would hardly be logical. Indeed in the porch of Cave 11 we have clear evidence that the great guardians were planned *along with* the ceiling, for a border of painted pearl-motifs which "depends" from the ceiling (traces still being visible along the left lateral wall and along part of the rear wall of the porch) is interrupted just above these two panels. It would have been continued at these points had not the guardian panels been already conceived, perhaps already begun, when it was added. By this same token we can say that the large flaming Buddha at the left end of the rear wall was conceived *after* the ceiling was finished, for parts of its mandorla are actually painted over this pearl-motif (*fig. 6*).²⁰ Here, again, the situation is the expected one; for evidence of overlappings in other caves generally shows that motifs at the lateral ends of the rear wall of the porch were not painted until after those located closer to the cave's axis. This is not to say

that the flaming Buddha does not belong to the same general phase of painting as the great guardians and the porch ceiling. Stylistic factors suggest that most of the paintings in the porch belong to this same early period of activity; but some of the motifs are so obscured by smoke, by abrasion, or by later Saivite symbols that one cannot be too dogmatic about this. Admittedly, the unfinished state of the rest of the cave makes it quite conceivable that the porch decoration was not fully achieved in the first phase of work (the obscured series of seated Buddhas along the upper edge of the right rear wall and of the right side wall could well be additions of the second phase of work). Suffice it to say that in the porch we have a considerable body of painting (including the fragmentary motifs which define the door, window, and pillar designs) which belong to the first few years of Mahāyāna activity at the site, and which were completed while the excavation of the interior of the cave was still underway.²¹

Moving into the interior we meet a very different situation. Here we find that the rear and lateral walls are decorated, but that the ceiling (although prepared with mud plaster) is not (*fig. 7*). Nor is there any evidence that the interior pillars (as opposed to the porch pillars) were ever

¹⁹ Observations regarding the traces of clouds above the bodhisattvas were made at the site but are not adequately visible in the photographs.

²⁰ Traces of the ruinous "pearl-motif" can be seen in *fig. 6* at the very top of the wall. On the spot observations make it clear that the border of the mandorla is painted over this motif.

²¹ A ruinous painted Litany scene at the left end of the porch, which we assume also belongs to the first phase of work on the porch, has a short (unpublished) inscription beneath. It would be of interest to compare the letter forms of this inscription with those (also unpublished) beneath a now ruinous standing Buddha (see below) on the rear wall of the interior. The latter image, like the seated Buddha associated with the newly discovered inscription (*figs. 16 and 17*), must belong to the second phase of work on the cave.

decorated. These observations demand special consideration, for the weight of evidence at Ajaṇṭā suggests that the ceilings and pillars were normally completed before the walls.²² Furthermore, as pointed out above, the Buddha in the shrine is remarkable in that it shows two distinct layers of paint.

After making such observations, we can reconstruct the over-all development of work in the cave as follows.

The excavation, started very early in the Mahāyāna phase, proceeded in the normal fashion, the porch being completed first. Painting of the porch probably began while the interior hall was still being cut out. When the excavation of the interior hall was complete, and excavation of the shrine was in progress, the interior hall was readied for painting by the application of mud plaster to its ceiling and its four walls. It is possible that the Buddha image (and its halo) was painted at this same moment (or even before the walls and ceiling of the main hall were plastered) for we have proof in other instances that this crucial element was sometimes completed relatively early, presumably to make the cave useful for worship even when its total decorative scheme had not been realized.²³ In any case, it must have been just at this moment that the work in progress was halted, when the pradakṣiṇapatha was still incomplete, when the Buddha image had just

been painted (or was hurriedly painted in anticipation of work being interrupted) and when the interior hall had been prepared (i.e., mud plastered) to receive its decoration. Just why work was brought to a halt we shall probably never know, any more than we shall know why work was interrupted relatively early on certain other early Mahāyāna caves such as 16 and 20, only to be taken up again some years later. Perhaps interest in continuing work on the decorations flagged once the caves were actually put into use, just as present day buildings sometimes never are quite finished or are continued only sporadically once an initial surge of activity has run its course.

When work was taken up again in Cave 11, a very characteristic change in attitude was evidenced. The walls of the previously unfinished interior hall (except for the unfinished and less important—because less visible—front wall) were now literally covered with Buddhas and bodhisattvas of all different shapes and sizes. Their placement is quite random, suggesting a reflection of the interests of various separate donors rather than of one controlling patron working with a master-planner. On the right wall (*figs. 8 and 9*), dreadfully obscured by grimy deposits, are rank upon rank of tiny seated Buddhas,

²² This is evident from a study of such major caves as Caves 16, 1, 2, and 21. Fully completed caves such as Cave 17, Lower 6, or 19 cannot of course provide such evidence; nor can caves such as 3, 4, 5, Upper 6, 14, 15, 22, 23, 24, 25, 27, etc., where a consistent program of painting was never undertaken due (in most instances) to their being underway at such a late date.

²³ See Caves 20, Upper 6, 4, and even Caves 16 and 1 at Ajaṇṭā, as well as the Ghaṭotkacha viihara. The objection that the Buddha would not be painted before the pradakṣiṇapatha was completely cut cannot be sustained, for there are many instances at Ajaṇṭā where painted areas are directly contiguous to areas still being worked on by the excavators. For instance, the ceiling of the rear aisle of Cave 21 was painted while the cutting of the contiguous pillars of the shrine antechamber was underway.

very reminiscent in theme and style of the multiple Buddha representations in Cave 2's shrine vestibule, an area which must have been decorated during the very last years of the site's activity.²⁴ These Cave 11 figures, which may be intended to represent the "1000 Buddhas" (the group in Cave 2 is so inscribed), surround a larger standing image flanked by two attendants holding musical instruments (*fig. 10*).

On the opposite (left) wall (*figs. 11 and 12*), numerous larger Buddhas appear. The upper level of the wall shows a barely visible series of standing (perhaps walking) Buddhas at the left, and a series of seated Buddhas at the right (the latter series continues around on the left rear wall). Just to the right of the second cell door a hieratic standing image (Avalokitesvara?) can still be seen. Toward the front end of the wall between the first two cell doorways (*fig. 11*), there were two large and splendid enthroned images, done in a flashy but highly skilled style with much use of a brilliant orange pigment which is often found in the intrusive late panels added to other caves at the site (e. g. Caves 4, Upper 6, 21). Noteworthy are the long-necked birds' heads springing from the thronebacks (*figs. 13 and 14*). In sculptured shrine groups, which are easier to arrange chronologically because of their integral connections with the excavations proper, such motifs only appear in the latest phases of work at the site.²⁵ A study of painted groups, or of intrusive panels, suggests the same conclusion, for such birds' heads only appear in

distinctly late contexts: one never finds them, for instance, among the numerous painted Buddha panels in the early Chaitya Cave 19, but they are common in Chaitya Cave 26.

Near the left end of the rear wall (*fig. 15*) another large Buddha appeared; it is now practically obliterated, but the head of one of the two attendants has been preserved by the Department of Archaeology, and shows clear relationships with the heads of the attendants of the groups on the left wall. There is certainly every reason to assume that this group, and indeed all of the figures on the back wall, belong to the same phase of late activity as those on the side walls. This assumption is further substantiated by the curious fact that this group and some other figures on the back wall were painted over cloth, as were some of the figures on the left wall. Neither in the porch of Cave 11 nor indeed in any portion of any other cave at the site do we find a counterpart to this. We return to this problem below.

Just to the left of the shrine door on the rear wall (*fig. 15*), there are a number of tiers of repetitive seated Buddhas, raised upon stemmed lotus pedestals. This was clearly a hieratic formulation of an epiphany scene, probably representing the Śrāvastī Miracle, a composition which became increasingly popular at Ajañtā as the site developed in its Mahāyāna phase.

The right rear wall of Cave 11's interior displays, at its right end, an elaborate

²⁴ Cave 2 was one of the last fully excavated caves at this site (see Spink, *Ajañtā and Ghaṭotkacha*, pp. 143–146), and its shrine vestibule, being at the rear of the cave, must have been one of the last parts of the cave to have been decorated.

²⁵ The long necked birds' heads (which replace earlier lotus tendrils) become particularly common as a throne motif in sixth-century Buddhist compositions (see Spink, *Ajanta to Ellora*, p. 31). Still later, they are replaced by complete birds, which often hold flowers or beads.

pavilion composition, now very ruinous (*fig. 16*). Possibly it represents a Buddha paradise motif and as such would tie in convincingly with the apparently salvation-oriented iconography of the surrounding walls. It is conceivable that the pavilion revealed a central Buddha image; but the damaged condition of the fresco makes this a mere conjecture.

Between the pavilion scene and the shrine door, on this same right rear wall, an impressive group of large seated Buddhas was painted (*fig. 16*). This group, now badly damaged, forms a kind of counterpart to the group of smaller images just to the left of the shrine door; however the artists have made no attempt to relate the two compositions in formal terms, as one might expect them to have done in a cave with a more consistent overall scheme of decoration.

This group of seated Buddhas to the right of the shrine door is in itself a rather disorganized conception, again suggesting that we are dealing with a patchwork of separate donations rather than with a carefully pre-planned composition. The upper third of the wall area, at least part of which was surfaced with fabric, shows two elaborately enthroned Buddhas in *pralambapādāsana* (the so-called European pose) (*fig. 17*). The newly discovered donative inscription of Mitrādharmā, which Dr. Dhavalikar has dated to the latter part of the fifth century, appears on the throne pedestal of the image at the left.²⁶ The other image appears to have had no inscription.

These two Buddha images along the upper portion of the area to the right of the shrine door are barely visible due to surface loss as well as obscuring grime and need to be photographed with special (infra-red?) techniques. Until this is done one can hardly discuss them properly. However, it can be said that they appear to have been skillfully executed in a style somewhat like that used for the similarly conceived late Buddhas on the rear wall of the interior of Cave 16, and for the elaborately enthroned and inscribed late Buddha on the right "triforium" of Cave 9.

The best preserved of these two Buddhas is the inscribed one at the left (*fig. 16*). Faint traces of its face are visible, as is the face and much of the body of the elegantly posed bodhisattva at its proper left. Two kneeling devotees can also be seen on this same side (we would probably be correct in assuming that similar attendant figures appeared at the proper right). This Buddha's throne is supported by tensely posed crouching lions of a type often encountered on the thrones of both sculptured and painted Buddhas during the later phases of work at the site.

The adjacent Buddha image, which also had a pair of bodhisattva attendants, is seated upon a somewhat more conventional four-legged throne (*fig. 17*). His feet rest upon an expanded lotus, which serves as his "footstool." Such lotus footstools are not in themselves a sure hallmark of late date, but it is perhaps significant that they are used exclusively for such *pralambapādāsana* images in the later phase, whereas a few decades earlier rectangular pedestals or plinths are often found. In this same regard, it might be noted that the *pralambapādāsana* pose became increasingly pop-

²⁶ See *fig. 3* in the preceding article by Dr. Dhavalikar in this same issue of *Ars Orientalis*.

ular as iconography developed in the last third of the fifth century at Ajañṭā; at other sites, in the sixth century, its popularity increased still further.

Directly beneath the Buddha images just discussed, three (or perhaps four) other large Buddhas once appeared, along with a number of tiny seated ones, four of which can still be seen just to the left of the simple cell doorway (*fig. 16*). Only one of the larger images remains; but the others were probably of the same type, rendered in a conventional cross-legged pose. They were all sheltered by still evident three-tiered umbrellas similar to those over the series of seated Buddhas which in the very late period of work at the site were added to the left wall of the interior of Cave 16. In the latter cave, just as in Cave 11, iconographic emphasis had shifted to the representation of multiple Buddha images during the second phase of work.

Although the lower portion of this section of the right rear wall in Cave 11 has lost all of its painted surface, it is likely that it too was filled with seated Buddha images.

Thus we see that the interior hall of Cave 11 is literally filled with a variety of Buddha images which, by virtue of certain characteristics of style and iconography as well as by virtue of the very idea of filling an interior with such a random assortment of purely iconic forms, should be assigned to a very late period of activity at the site. The fact, too, that the hall still has available surfaces (such as the front wall) which are unadorned with images also suggests that it was being decorated at a very late period; that is, it was never fully completed, because time ran out.

The assumption that the interior paintings were done during this late period when, as many other instances throughout the site attests, interests were centered upon imagery rather than upon ornamenting or even upon completing excavations is further suggested by the fact that the ceiling is not decorated. This is in direct contrast to the situation in the porch where, as we have noted, the ceiling was undertaken first, and with great attention to its lavish effect. It is also in direct contrast to the situation in all other early Mahāyāna excavations, at least in those where work progressed without interruption. It seems clear that the original planners of the cave had every intention of decorating the ceiling before their work was interrupted because the ceiling, like the walls, has a coating of mud plaster (*fig. 7*). It is difficult to believe that this mud plastering was done in the second, later phase of work, because if later artisans had taken the trouble to apply it, they would almost certainly have decorated it. (The same could be said for the plastered but unpainted front wall of the interior.) Indeed, various examples in Cave 4, Upper 6 and 22 make it quite clear that during the last few years of work at the site, when artists were called upon to add images to wall surfaces never previously plastered, they applied mud plaster only to the immediate area of wall with which they were concerned, sometimes adding a small amount to the ceiling area directly above, which they decorated as a kind of canopy for the icon below.²⁷ The idea of plastering a *whole* wall or a

²⁷ The well-known sculptured Litany scene in the porch of Cave 4 is a case in point. Numerous other (and equally late) examples appear in the interiors of Cave Upper 6 and Cave 22.

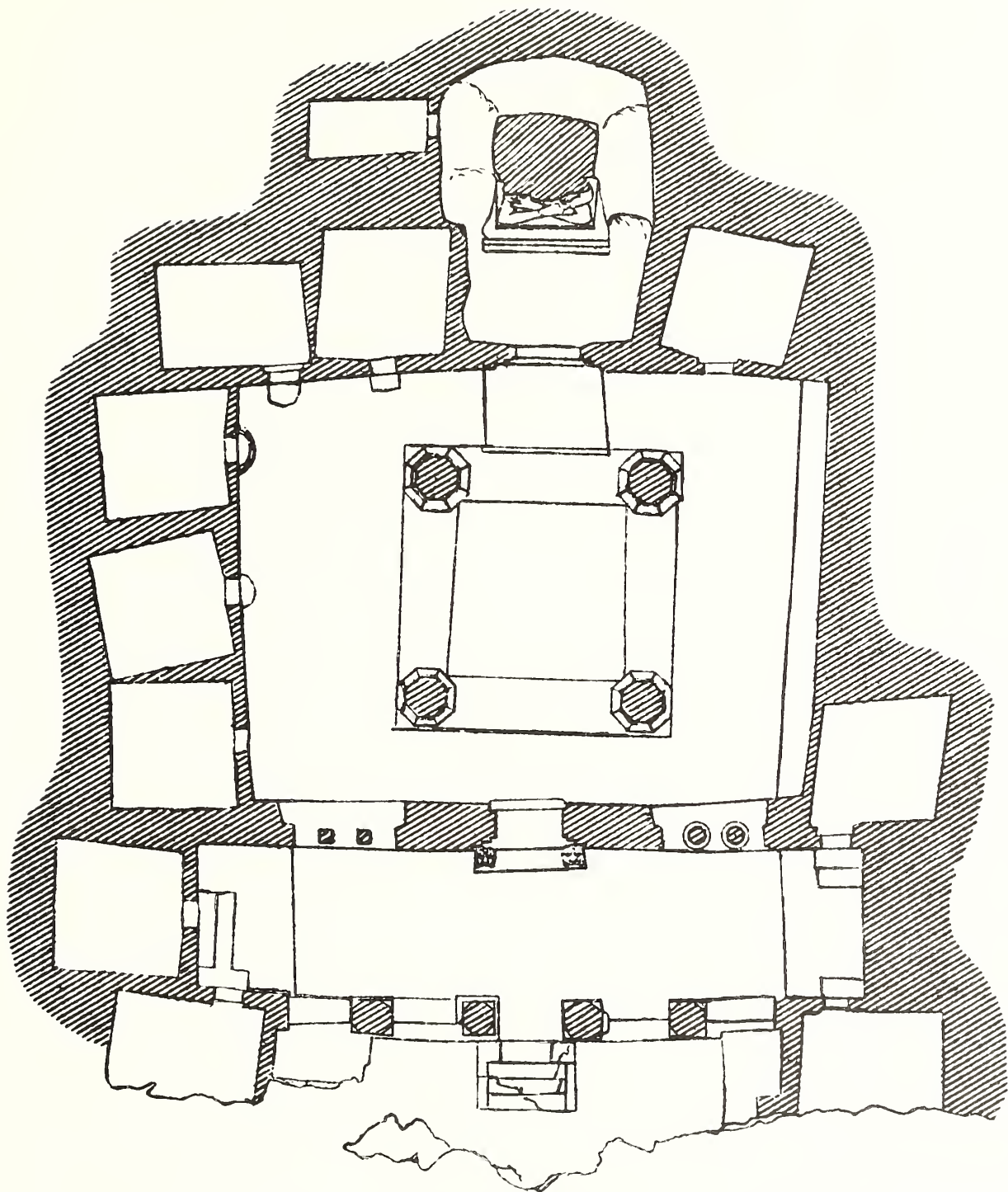


FIG. 1.—AJANTA. CAVE 11. Plan. (Published in J. Burgess, *Report on the Buddhist Cave Temples*, Archaeological Survey of Western India, vol. 4, London, pl. XXVIII, no. 2.)



FIG. 2.—AJANTA, CAVE 11. Porch. View toward right end. (Photo Asian Art Archives, University of Michigan [cited hereafter as AAA], F 6189.)



FIG. 3.—AJANTA. CAVE 11. Porch. Ceiling, detail of central section (AAA, 20, 216).



FIG. 4.—AJANTA. CAVE 11. Porch door, with traces of flanking guardians at left and right (AAA, 15, 114).



FIG. 5.—AJAṆṬĀ. CAVE 11. Porch, painted details above left window, showing painted figure supporting painted ceiling beam (AAA, 20, 214).

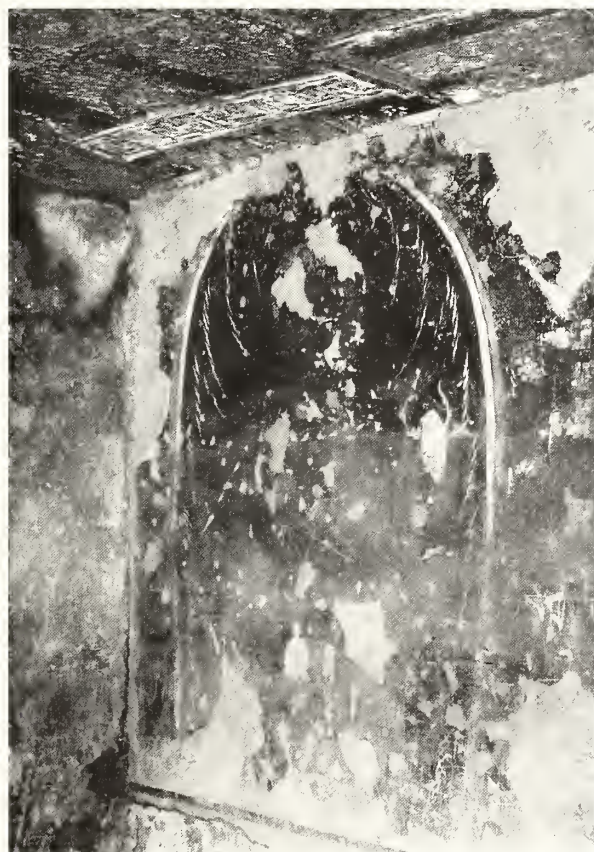


FIG. 6.—AJAṆṬĀ. CAVE 11. Porch. Flaming Buddha at extreme left end of rear wall (AAA, 20, 215).



FIG. 7.—AJANTA. CAVE 11. Interior. View toward shrine (AAA, 15, 115).

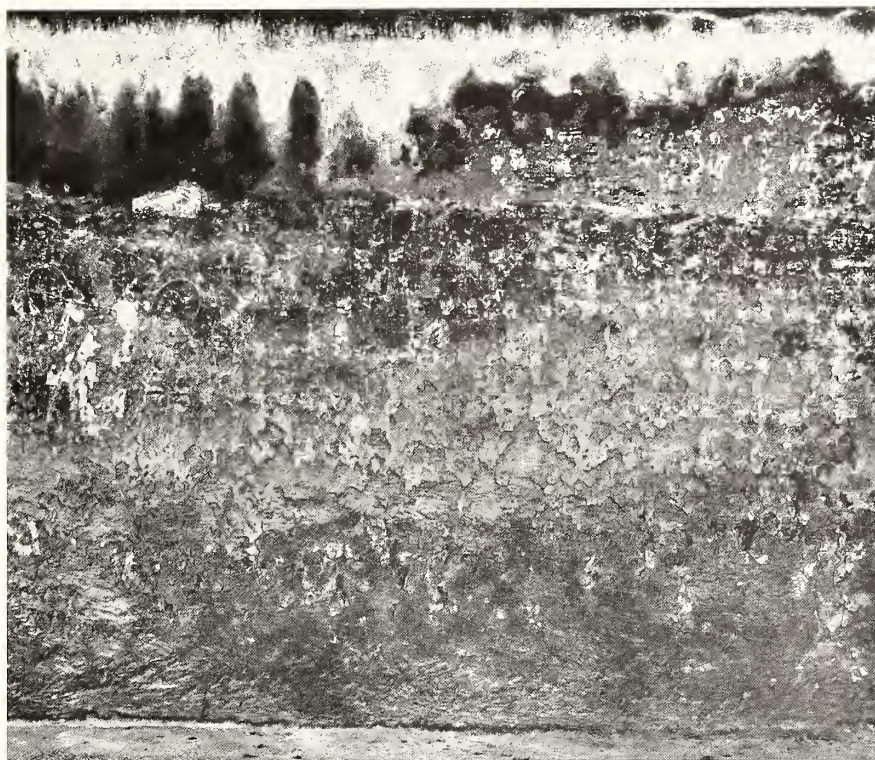


FIG. 8.—AJAṆṬĀ. CAVE 11. Interior. Right half of right wall, showing traces of a “Thousand Buddhas” (photography courtesy of the Government of India, Department of Archaeology, no. 55–1–307 [UNESCO Series]).

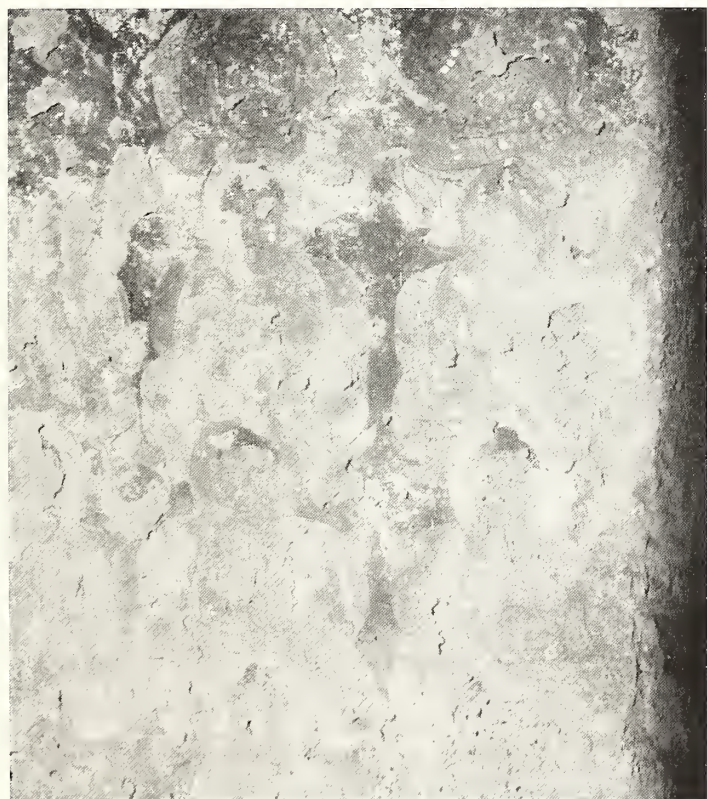


FIG. 9.—AJAṆṬĀ. CAVE 11. Interior. Right wall, detail showing small seated Buddhas (AAA, 20, 225).



FIG. 10.—AJAṆṬĀ. CAVE 11. Interior. Right wall, showing standing Buddha and two musicians, at center of “Thousand Buddhas” (cf. left portion of *fig. 8*, AAA, 20, 224).



FIG. 11.—AJAṆṬĀ. CAVE 11. Interior. Left wall, showing traces of paintings (photo, Spink 6186).



FIG. 12.—AJAṆṬĀ. CAVE 11. Interior. Left wall between second and third cell doors. Detail showing traces of cloth impression (AAA, 20, 238).



FIG. 13.—AJAṆṬĀ. CAVE 11. Interior. Left wall between first and second cell doors. Detail of Buddha group, showing attendant and throne details at the left (AAA, 20, 234).



FIG. 14.—AJAṆṬĀ. CAVE 11. Interior. Left wall, between first and second cell doors. Detail of Buddha group, showing bird's head motif on throne back (AAA, 20, 543).



FIG. 15.—AJANTA. CAVE 11. Interior. Rear wall, left of shrine door, showing ruinous standing Buddha group at left and "Sravasti Miracle" at right (AAA, 15, 121).



FIG. 16.—AJANTA. CAVE 11. Interior. Rear wall, right of shrine door, showing pavillion at right and various Buddhas at the left (AAA, 15, 123).

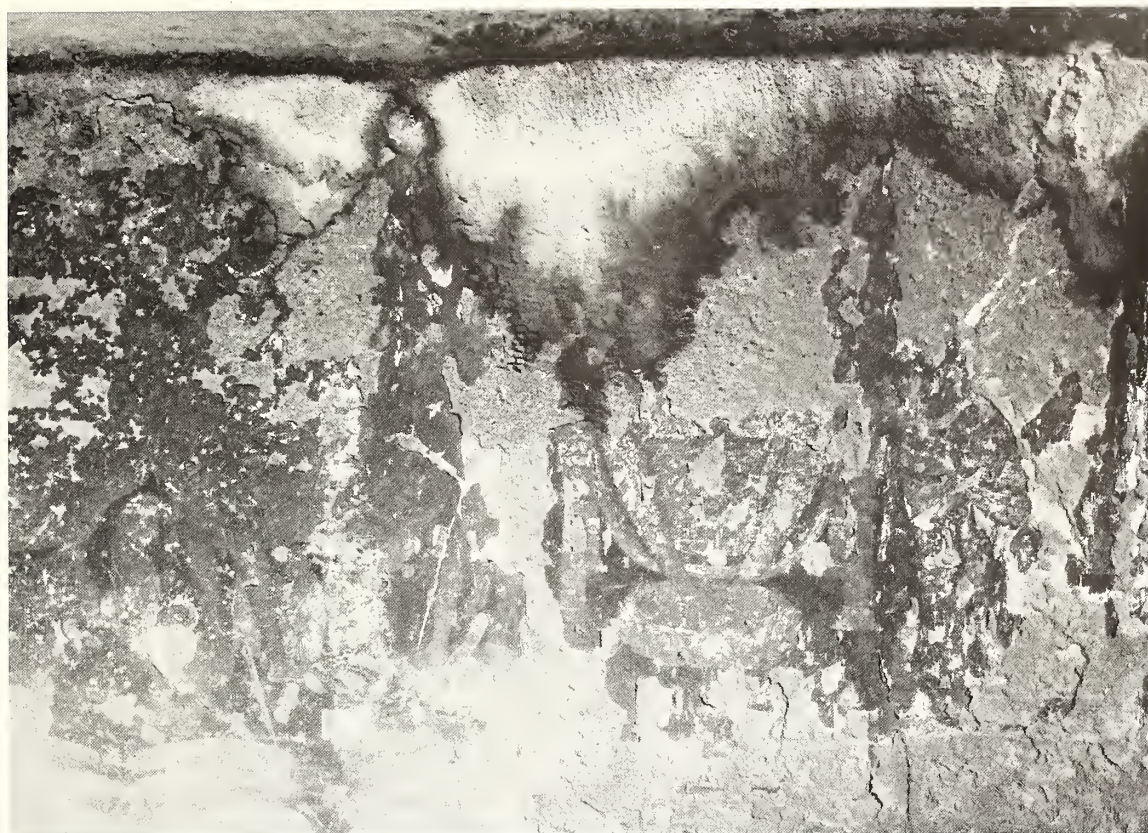


FIG. 17.—AJANTA. CAVE 11. Interior. Rear wall, showing Buddhas at right of shrine door (for location, see upper left portion of *fig. 16* [AAA, 549–66]).

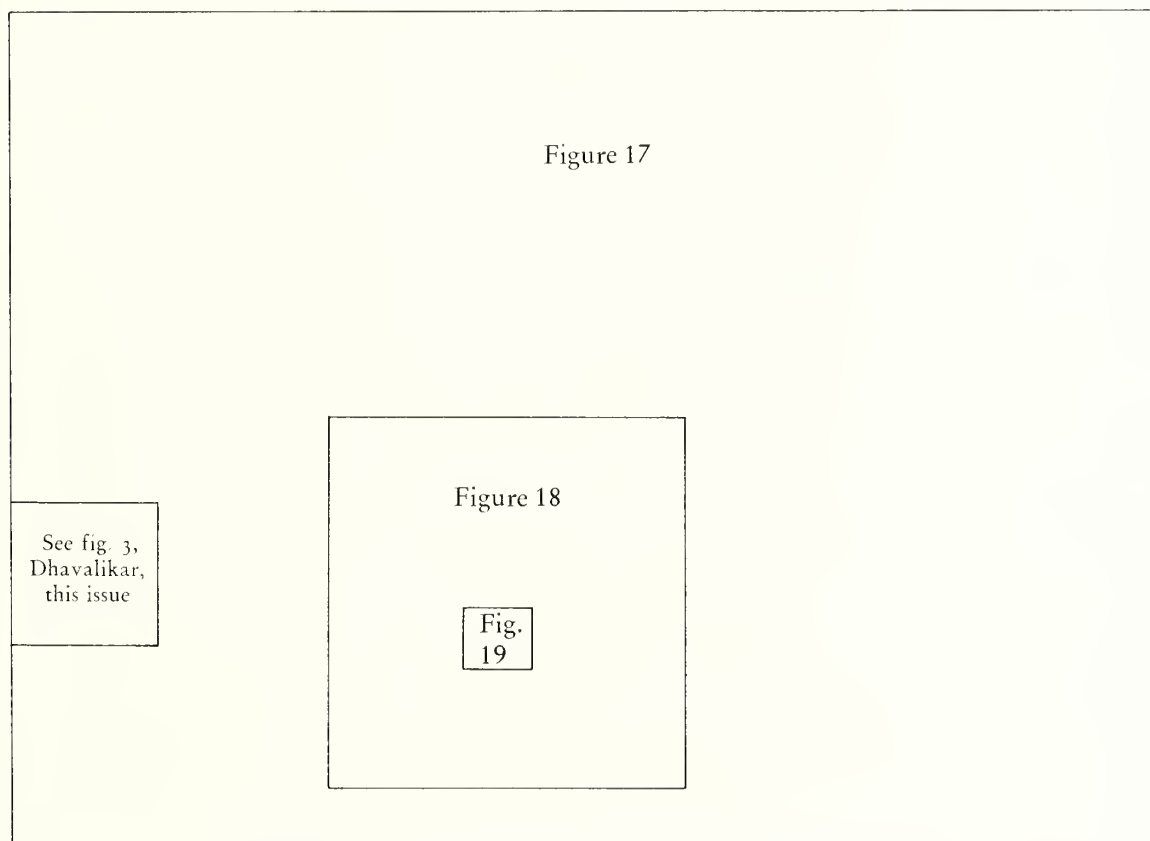


Diagram of locations of figures 18 and 19 within figure 17.



FIG. 18.—AJAṆṬĀ. CAVE 11. Interior. Rear wall. Detail of figure 17, showing appearance of the fabric upon which paintings in this area are done (AAA, 20, 220 [detail]).



FIG. 19.—AJAṆṬĀ. CAVE 11. Interior. Rear wall. Closeup of the painted fabric visible in figures 18 and 17 (AAA, 547–66 [detail]).



FIG. 20.—AJAṆṬĀ. CAVE 11. Interior. Shrine door
(AAA, 11, 210).



FIG. 21.—AJAṆṬĀ. CAVE 11. Interior. Shrine, showing unfinished
pradakshinapatha (AAA, 20, 210).



FIG. 22.—AJAṆṬĀ. CAVE 11. Interior. Shrine, showing stupa behind the Buddha's throne and evidence of repainting on halo and under arm (AAA, 20, 239).

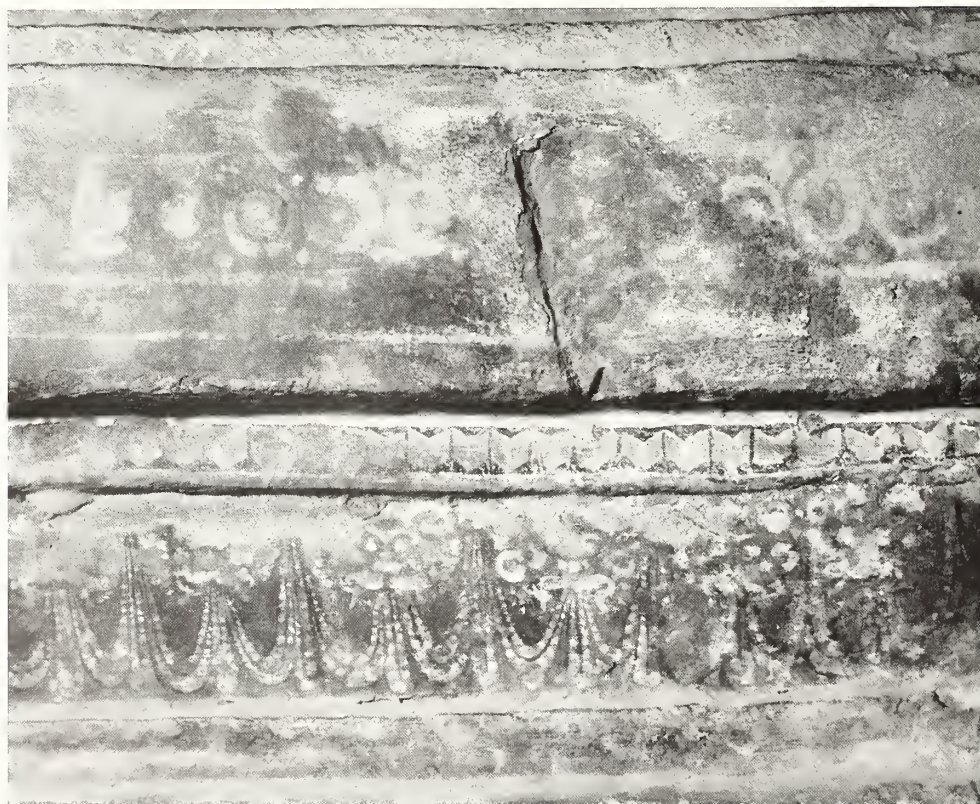


FIG. 23.—AJAṆṬĀ. CAVE 11. Interior. Shrine. Painted details on throne base (AAA, 20, 240).

whole room first, before starting to paint, was a thing of the past.

Another factor may also support the assertion that the plastering of the interior was done considerably prior to the painting. As mentioned above, a considerable portion of the plaster on the interior wall has (or had) a surfacing of cloth, over which the paintings were applied. I hesitate to explain this curiosity in any dogmatic way, but it would seem that the cloth was applied in order to improve or repair certain areas of the mud plastered surface prior to their being decorated. If this is so, it would lead us to infer that some years had passed since the plaster was applied, during which time the surface of the plaster had become abraded.

The rear wall of the interior had a considerable amount of fabric on it, much of which is still intact, although in extremely fragile condition, and peeling off (*figs. 18 and 19*). On the left wall between the second and third cell doorways a whole piece of this fabric which either had been pressed into the wetted surface of the mud plaster or (more likely) had been glued against the dry mud plaster has become detached leaving a distinct impression of its shape as well as its weave on the remaining mud plaster beneath (*fig. 12*). The fact that this appears to have been the only piece of cloth applied to the whole left wall and the fact that its shape was so irregular strongly suggests that it was used as a patch (i.e., for repair) and applied rather carelessly. It is hard to believe that it (or similar areas on the rear wall) could have been a painted banner; not only is it irregularly applied but its edges appear to have been very frayed—as if it had been ripped to the requisite size before application. Fur-

thermore, images (now barely visible) seem to have been painted on the wall at this point, but with no reference to the piece of cloth in question; their upper portions appear to have projected above the cloth's top edge.

It seems clear that such cloths merely formed part of the base upon which the paintings were done. Apparently, once the cloths were glued (?) onto the mud plaster, the thin ground of pigment upon which the paintings were rendered was applied uniformly to the wall surfaces, and the paintings were then done without reference to the position of the cloth "patches." For this reason it is extremely difficult to see, when we turn to the rear wall of the cave, just where the cloth areas end, for both cloth-based areas and mud-based areas have a similar coating of ground, color, and (unfortunately) thick obscuring grime. In fact it is quite possible to observe the cloth-based surfaces intensely, without realizing the paintings are actually done on this kind of background.²⁸ It is only when one realizes that large areas of the paintings have actually become detached or raised up from the mud plaster and yet retain enough strength to keep from crumbling away that one is led to look closer for the explanation, namely that they are sustained by the still preserved (although very dry and fragile) fabric.

Another suggestion that the cloths represent second-phase repairs to the plaster rather than first-phase applications is to

²⁸ As far as I know, no notice has ever been recorded of this phenomenon in Cave II, although parts of the rear wall surface have been restored. The restorers must have been aware of the situation, but perhaps did not realize how interesting and unusual it is.

be seen in the fact that no cloths appear to have been applied to the front wall or to the ceiling of the interior, neither of which areas were painted in the second phase. Also no cloths appear under the first-phase paintings of the porch.

The decoration of the shrine doorway (*fig. 20*) is probably contemporary with the other paintings of the interior. The fact that it does not have the figural motifs which one might expect at this time could be explained by its being a rather hastily conceived and painted conception. The painter appears to have mimicked the decorative forms of the earlier porch door, which provided a ready pattern, although his use of rosetted "dividers" may reflect the influence of somewhat later doorway designs.²⁹

The anomalous character of Cave 11 is of course compounded (and reaffirmed) by the treatment of the sculptured Buddha in the shrine (*fig. 21*). It is clear that the image was satisfactorily completed and painted at one point in time, and then at another point in time was "restored." The halo distinctly shows two phases of painting—for an earlier and more careful design is revealed by the flaking off of portions of the second layer of decoration (*fig. 22*).³⁰ Whether the throne base was simi-

larly restored is problematic because no such overlay now remains on the nicely executed designs which decorate that portion (*fig. 23*). However, the Buddha image itself was surprisingly treated in this second phase of work. Its proportions were actually altered by the application of a thick layer of mud plaster to portions of the figure (notably the waist) (*fig. 22*). Upon this newly built up surface a new layer of paint was applied.

The reason for this change in the actual shape of the Buddha figure is problematic. Perhaps the change only represents a personal preference on the part of the artist or patrons. On the other hand, perhaps canons had changed to this degree over the course of a decade or two and the image was brought "up to date" when the interior was painted. If the latter should be the case, such canonical distinctions are elusive ones to the modern devotee's eye, at least at this point in our investigations. What is more pertinent to suggest at present is that the two phases of work on the Buddha image would seem to correlate with the early and late phases of work on the cave as a whole and thus with the earliest and latest phases of Mahāyāna patronage at the site itself. We have suggested previously that patronage activity at the site started about A.D. 465 and ended about A.D. 500. The tentative late fifth-century dating of the newly discovered Cave 11 inscription would support this hypothesis since the inscription is directly associated with paintings of a characteristically late type.

²⁹ It is conceivable that the shrine doorway was decorated during the first phase when the main Buddha image, upon which it enters, was painted. A comparative study of the pigments used might help to resolve this question.

³⁰ This repainting is very obvious in on-the-spot examination but is hard to see in photographs.

UE GUKEI — FOURTEENTH-CENTURY INK-PAINTER

By RICHARD EDWARDS

FOR THE HISTORIAN, BEGINNINGS ALWAYS have a special fascination. One such beginning, still imperfectly understood, is that which in Japan involved the rise of ink painting to the status of a major art form.¹

Brush and ink were always in Japan. At least we can assume their importance from the traditional date of the introduction of writing close to A.D. 405.² Yet in late Kamakura and early Ashikaga times—the late 13th and 14th centuries—these particular tools were turned to specially expressive uses, to the defining of new subjects and to making visible a new kind of reality. As beginnings do not usually suddenly spring out of whole cloth but are often patchwork creations, the matter of influences is of more than ordinary importance at such a time. Then, is it possible to detect at what time outside stimulus ceases

to become a matter of prime concern, when any influence is so well accepted that it automatically becomes part of spontaneous original creation?

For the rise of ink-painting in Japan, the accepted influence was, of course, China and the painters of the late Southern Sung and the Yüan. This doubtless should be stretched into the early Ming. A key was the 14th-century.

To find a 14th-century painter whose existing works permit us to understand him with at least relative clarity is, thus, both interesting and important. Such a painter was Ue Gukei 右慧愚溪. Known to Japanese historians from at least the Edo period, his uniqueness has only recently been clearly defined by Japanese scholars—particularly Shimada Shujirō, Nakamura Tanio, and Etoh Shun.³ However, outside of a few

¹ The basic substance of this essay was originally presented as a paper at the College Art Association meetings at Cleveland, January, 1967.

² G.B. Sansom, JAPAN, *A Short Cultural History*, New York, 1931 (revised 1943), p. 36.

³ It is to these scholars, that I am indebted for much of the basic data assembled here. Their articles are as follows:

Shimada Shujirō 島田修二郎, *Ue Gukei no sakubin nishu* 右慧愚溪の作品二種 (“Two of Ue Gukei’s Works”), *Kokka* 707, Feb., 1951, pp. 83–90.

Nakamura Hideo (Tanio) 中村秀男 (溪男), *Gukei hitsu chiku jaku zu to sono nendai* 愚溪筆竹雀図とその年代, (“Gukei’s painting, ‘Bamboo and Sparrows,’ and his age”), *Kokka* 762, Sept., 1955, pp. 261–269.

Nakamura Tanio, *Sansui zu to Hotei zu* 山水図と布袋図 (“Paintings of Landscape and Hotei”), *Museum*, no. 73, April, 1957, pp. 14–16.

Shimada Shujirō, *Gukei Ue hitsu budo zu*

愚溪右慧筆葡萄図 (“Ue Gukei’s painting of Grapes”), *Kokka* 824, Nov., 1960, pp. 430–435.

Etoh Shun 衛藤駿, *Ue Gukei hitsu hakui Kannon zu* 右慧愚溪筆白衣観音図, (“Ue Gukei’s painting of the White-robed Kannon”), *Yamato Bunka*, no. 34, 1961, pp. 57–60.

Etoh Shun, *Hakui Kannon zu, Gyo shō zu* 白衣観音図漁樵図 (“Paintings of White-robed Kannon, and Fisherman and Wood-cutter”), *Yamato Bunka*, no. 46, 1967, pp. 53–57.

For an excellent reproduction of the Landscape in the Tokyo Museum, see *Kokka* 125.

I would like also to express my thanks to Professor Hasumi Shigeyasu of Kyoto University for his interest in an introduction of Gukei to western art historians, for helpful conversations on this subject, and for obtaining photographs, particularly of the Shaka Trinity from Manju-ji. Mr. Shun Etoh has kindly supplied me with a photograph of the Yamato Bunkakan Kannon.

specialists in Japan, he has remained largely unknown. His name has been overshadowed by more famous, yet not necessarily more clearly definable, 14th-century artists—Mokuan 默庵, Kaō 可翁, and Ryōzen 良全.

This neglect is understandable, too, on grounds of excellence. Many of Gukei's contemporaries were far more polished and sophisticated painters. We might well consider Gukei a "primitive." Yet here may be certain advantages, for his very primitive qualities may help illuminate directly both matters of outside influence and individual creativity. The very clarity of his art may then bring us to a better understanding of painting in the temple settings of Japan during the second half of the 14th century. It is for these reasons that he is presented here.

Who was Gukei? It is necessary to ask this same question about all of Japan's 14th-century ink painters. Zen artists were not honored by clear biographies and priests' names were duplicated. There actually were three priests with the name Gukei. There was Gukei Chishi 智至 who lived in Shōtenji 承天寺 in Hakata (east Fukuoka) on the island of Kyushu. He was a direct follower of Ryusen Reisai 竜泉冷淬 who in turn was the disciple of Kokan Shiren 虎関師錬. Gukei Chishi is said to have painted after Mu-ch'i and also to have done priest portraits. There was Gukei Jōe 浄慧 who lived at Jufukuji 寿福寺 in Kamakura, the temple founded by Eisai in 1200 after his return from China.⁴ Jōe was a disciple of

⁴ It was one of the Five Great Temples of Kamakura. See Miyama Susumu and Yahagi Kazumi 三山進矢萩和巳, *Kamakura no Chō koku* 鎌倉の彫刻, Tokyo, 1966, p.201 ff., for convenient map and historical chart.

Muaku Ryokin 無惑良欽. He, too, studied Mu-ch'i and is reported to have done an "ink-play" of a mynah bird. Finally, there was Ue Gukei who emerges today as the important 14th-century painter. Yet not only has he been confused in the past with the other two priest-painters who used the name Gukei, but also on one occasion his seals were given to Kaō. And it has even been attested that he was not Japanese at all, but a Chinese priest. This notion was readily acceptable about a time when priests travelled so often between China and Japan and when the aims of painting seem to have been fostered more by Zen Buddhism than by national origin. All of the Gukei's were painters, yet it is clear from surviving works that Ue Gukei's talents were far wider in range than the stereotype notices that have survived about the other two—suggestions that they painted in the manner of Mu-ch'i or that they painted priest portraits.⁵ It is Ue Gukei with whom we are concerned. Ue Gukei was the pupil of the orchid painter specialist, Tesshu Tokusai 鉄舟徳濟 (d. 1366) of Manju-ji 万寿寺 in Kyoto. Tesshu in his turn had travelled to China and seems to have had at least indirect contact with the southern Chinese priest-painter of orchids, Hsüeh Ch'uang.^{5a} Ue Gukei was also a

⁵ Shimada, *Kokka* 707, p. 83. Here is assembled most of this information. The sources are as follows: *Gakobenran* 畫工便覽; *Honchogashi* 本朝畫史; *Kogabiko* 古畫備考 and *Bengyokushū* 辨玉集 (where Gukei's seals are listed under Kaō).

Strong reasons for the belief in Gukei's Chinese origin seem to rest in the fact that Gidō's *Kugesbū* records a leave-taking poem which was presented to him. This led to the assumption that he came temporarily to Japan and was leaving to return to China (*Kokka* 125, p. 88).

friend of the Zen monk, Gidō 義堂, who became famous in Kamakura as a gatherer of data on the priestly world of his day which he preserved in two volumes entitled, *Kūgeshū* 空華集 and *Nikkoshū* 日工集. Gidō wrote Gukei's "epitaph" which is included in his *Kūgeshū*. From this latter—to which I will return later—we are told of Gukei's skill as an artist and particularly that he had a sobriquet, or *go*, Genan 幻菴 "Maya hut." This at once seems to have been a reference both to the Buddhist notion of Maya, or "illusion," in an awareness of which a Buddhist priest must dwell, and in addition a reference to the artist's own unique powers by virtue of which he is able to create with his brush the "illusion" of the existence of all things.

It is then to his art that we must turn. A painting which Nakamura has surmised as an early work is Gukei's Bamboo and Sparrows (*fig. 1*) recently discovered in Daiji-ji 大慈寺 of Kumamoto Province in Kyushu. The inscription is by the eighth chief priest of the temple, Tenan Kaigi 天庵懷義, who died in 1361. Gidō, to whom we have just referred, was active in Kamakura from 1359 to 1380 when he left for Kyoto on the orders of Ashikaga Yoshimitsu. From the order of entry in his writings, Mr. Nakamura concludes Gukei must have been in Kamakura in 1375. Gukei's teacher, Tesshu, did not return from China until 1341. Gukei must have been his student after this time. These are the only dates we can gather about Ue Gukei, and thus a painting done before 1361 might well qualify as at least a relatively early work.

^{5a} Li Chu-ting, *The Oberlin Orchid and the Problem of P'u-ming*, Archives of the Chinese Art Society, 16, 1962, pp. 65 ff.

Along with this partially dateable painting is a small but impressive body of material that we can associate with this early artist. There is a total of ten surviving scrolls, two of which come down to us only in copies. Yet this group is sufficient to suggest a breadth of interest that ranges from Buddhist icon, to landscapes, to the more intimate summary of vision that is the still-life, or bird and flower subject. Perhaps, too, we can generalize enough to say that these are typical interests of 14th-century ink painters. Subject matter at least establishes Gukei within the mainstream.

In almost all cases, too, we can suggest a Chinese prototype for the particular painting that Gukei has left us. Again, this might well be considered typical of the period, as a comparison between Mokuan's (active 1326–45) Hotei from the Atami Museum and the same subject in the Yasuda Collection (Kanagawa) by a Chinese painter would indicate.⁶

Gukei's small Bamboo and Sparrows (1 foot 4.7 inches high and 8.2 inches wide) can be effectively paralleled by a well-known hanging scroll of the same subject in Tokyo's Nezu Museum, a painting attributed to Mu-ch'i (*fig. 2*). This is true of such a detail as the technique of representing a cluster of bamboo leaves, and particularly the deliberately spontaneous creation of scattered ink dots that in Japan is characterized as *fukizumi* 吹墨 ("blown-ink"), a technique for which the artist loaded his brush with ink and then holding it up blew across the bristles in the direction of the painting with resultant random dots on the paper's surface. The whole

⁶ See *Yamato Bunka*, no. 31, 1946, pls. XI and XII.

painting has a strong Zen flavor. Not only do we have the implications of a somewhat explosive technique but also the poem inscription, which incidentally reads from left to right, tells of standard Buddhist heroes in terms of a common temple-nature setting. Without being precisely clear on the allusions involved, a rather direct translation is still of value:

Flying come the sparrows of Kāśyapa
Out surges the dragon of Maudgalyāyana
In the grove is the sacred child
Who is to open a Bodhisattva's palace.⁷

Another Gukei painting, *Grapes* (fig. 3), has recently come to light, again in a provincial region of Japan, namely Matsue (of Lafcadio Hearn fame). The obvious Chinese parallel for this work is the late 13th-century master, Jih Kuan, from whom I select perhaps his finest extant work, the scroll from the Inoue Collection which bears a date that can be most logically interpreted as 1291 (fig. 4). Professor Loehr has quite rightly mentioned the essential austerity of the Chinese painting,⁸ and this

⁷ Kāśyapa and Maudgalyāyana were among the ten disciples of the Buddha, Śākyamuni. The latter, born in a grove, would appear to the sacred child. Maudgalyāyana lived in a bamboo grove. *Fo-hsüeh tz'u-tien* 佛學辭典, Shanghai, p. 1691. At any rate the simplicity of a natural temple world — bamboo and sparrows — is related to the greatest sages of Buddhism. Kāśyapa was in some traditions noted for austerities. Maudgalyāyana because of his spiritual power was particularly famous for his mastery over the supernatural. See A. C. Soper, *Literary Evidence for Early Buddhist Art in China*, Ascona, 1959, pp. 235–236.

⁸ Max Loehr, *Chinese Paintings with Sung Dated Inscriptions*, *Ars Orientalis*, vol. 4, 1961, p. 270.

coolness stands in contrast to the full active warmth of Gukei's brush. Yet, again, in subject and technique the dependence of the Japanese artist is clear, and one notes in particular the flat circles of grapes and the strong black hatching of the leaf veins on gray blotches of ink. Even the use of two blocks of calligraphy is similar (when both paintings are seen as a whole) although the inscription in the upper right of Gukei's scroll is by an as yet unidentified priest *Baisetsuo Seiin* 梅雪翁清隱 who, Professor Shimada believes, must have been a contemporary of Gukei.

The theme of the White-robed Kannon must have been a favorite with Gukei. At least we know of two versions painted by him (figs. 5 and 6). In each case, Kannon forms the center of a triptych, with two landscapes placed on either side. One of the Kannon is known only in a copy by a later Kano School artist. The copy as well as Kano renditions of the two landscapes are in the Tokyo National Museum. The original of one of the landscapes fortunately survives and is in the same collection (fig. 18). The second Kannon has recently been acquired by the Yamato Bunkakan Museum near Nara and published by Etoh Shun.⁹ Here it is clearly identified as the central painting of a triptych whose two flanking landscapes are in the Masuda Collection in Kyoto.

The Kannon in the first-mentioned triptych, although only a copy, must indeed be faithful to the original. This is born out by the closeness of the surviving landscape to its copy. When we compare the Tokyo Kannon to the Yamato Bunkakan Kannon we sense both to what extent

⁹ See note 3.

Gukei was bound by a traditional theme and how far he was able to vary this on two separate occasions.

Painted on silk, the Yamato Bunkakan scroll (*fig. 6*) is the far more complex and pictorally complete version. We can sense its direct dependence on the most famous White-robed Kannon in Far Eastern art, Mu-chi's 13th-century version in Daitokuji (*fig. 7*). While one might argue that certain details, such as the shape of head and head-dress or the vessel that holds the willow branch, differ on the two paintings, there can be little doubt of the general exactness of conception which sees Kannon as a subtly glowing vision of light hovering over water and against the background of the dark cavern grotto. In both, Kannon is defined by rather blunt flat lines. The ends of the strews which make up his (or her?) sacred seat are similarly conceived as flat undivided lines. Rocks hang suspended above. Vines hang down from those rocks. While Gukei has not as certainly added a touch of bamboo, he has made a dark accent behind his Kannon which corresponds to the placing of Mu-chi's bamboo. The more certain axe strokes, *fu-p'i ts'un* 斧劈皴, which texture the rocks in Gukei's painting, can well be seen as growing out of the less staccato surfaces of Mu-chi's rocks and cliff.

Yet one sees in contrast the extraordinary calm and stability, the essential confidence of Mu-chi's vision. Space is defined as an even recession from lower left toward middle right. The shape of Kannon, a wide-based triangle, clings firmly to the rock, the flow of the robes re-enforcing the shape of the ground. No curved lines are wanted to break the silent unruffled silk of the water.

Opposed to this certainty is the tentative restless nature of Gukei's conception—the rather dramatic overhang of the rocky land, swirling lines of water, separated boulders, unfirm triangle of the sacred figure, the complexity of cliff that hovers, a little like threatening clouds, over the central form, and the looped and drawn-out lines of suspended vines.

The late Southern Sung, however, gives us another version of the White-robed Kannon as is born out by a mid-13th-century painting recently published by Yonezawa Yoshio (*fig. 8*).¹⁰ A general date is confirmed because of an inscription on it by a Ch'an priest, Yen-ch'i Huang-wen 偃谿黃聞, who died in 1263. Here, instead of the surrounding cliff-grotto, it is enough to present merely the overhanging rock, the seat of the "god," and a suggestive triangle of upper cliff. The upper part of Kannon is painted against the undefined background of the picture. It is this more open type that we see Gukei painting in the copy-version in Tokyo (*fig. 5B*).

This allows Gukei to indulge in rather swifter, briefer definitions and the essential elements for such a painting are made even more clear: a rather dramatically suspended rock extending from one edge of the painting and hanging over a void of space and water; a space which is accented by one or two isolated spots of boulder; the center of the painting a point of basic interest, for it is here that the head of Kannon is placed. Above is a suggestion of cliff, angled, and with vine or shrubbery suspended over the main figure, a deliberate pointer back into the center of the

¹⁰ Yonezawa Yoshio 米澤嘉圃, *Enkei Kōbun san Haku Kannon-zu* 偃谿黃聞贊白衣觀音図, Kokka, 813, 1959, pp. 473–474.

scroll. This became a constant and accepted formula for Zen figure painting in 14th-century Japan, as in Mokuan's *Four Sleepers* or Kaō's *Kensu*¹¹—scattered rocks, suspended land, centered head of figure, upper cliff and hanging shrubbery.

The landscapes that originally flanked this latter Kannon by Gukei show an equally consistent viewpoint (*figs. 5A and c*). Even though we have shifted from a figure in a landscape to a sketch of pure landscape, the same essential compositional formula holds. The center of interest is now not Kannon's head but grove and hut—the rustic retreat—while high peaks take the place of the slanting cliff. Just how the landscape derives from China might be suggested by the comparison of one of these copies of a Gukei landscape with what is surely a copy (although apparently a close copy) of a Hsia Kuei landscape, now in Japan, *Summer Storm* (*fig. 9*). Here bridge, figure, hut, grove, far cliff-peak are the basic elements of the artist's concern. The very fact that special effects are different in Gukei's idea of the theme does not so much deny the source as speak of a later century and perhaps a different country.

Indeed the exact sources for Gukei's landscape style are not as readily at hand as with his painting of bamboo or grapes or Kannon. Our approach must be more oblique, yet I think his position within Zen art of the 14th century is not too obscure.

Here we may turn to the pair of Gukei landscapes already mentioned, from the

Masuda Collection in Japan (*figs. 6A and c*). These are originals, not copies, and are painted on silk, not paper. But the same elements we have been stressing are present—a lower void, scattered rocks, land, grove, upper cliffs or peaks. Yet they are defined with rather light washes of the brush on a rather loose wide-grained silk. The effect is that of creating a deliberately effemeral world, almost as though one were looking at it through a thin, semi-transparent sheet of gauze (*figs. 10 and 11*). This effect is further reenforced by the subtle use of undefined areas which create the illusion of bands of mists playing in and out of grove and tree top, cliff and temple roof. The notion of a tangible atmosphere, of misty distance is thus made apparent.

And yet, I believe, one can question whether there is a real interest in space as such. A description of mist or the suggestion of distance is not the same as the creation of a tangible illusion of space. There is a tendency toward even tones of ink as one moves from bottom to top that emphasize the surface of the silk rather than painterly possibilities of depth. This applies to shapes as well so that there is, for example, an interesting angled repetition of the line of fisherman and nets, suspended tree branches and far peak which speaks of a desire to repeat shapes along the surface, not to bring about recession in depth (*fig. 6c*). One moves up, not back.

The notion of the landscape as a theme, not for opening the wall of the picture and evoking the illusion of "thousands of *li* in a square inch" but for reemphasizing that surface with a play of varied shapes and forms appropriate to the evocation of nature as a nonhuman world, would seem to

¹¹ Both these paintings have been recently exhibited in America and can be readily consulted in the catalogue of that exhibition, *Art Treasures from Japan*, Tokyo (Kodansha), 1965, nos. 39 and 40.



FIG. 1.—BAMBOO AND SPARROWS. GUKU, Daiji-ji. Kuamoto Province, Kyushu.



FIG. 2.—BAMBOO AND SPARROWS. ATTRIBUTED TO MU-CH'ï, 13TH CENTURY. Nezu Collection, Tokyo.



FIG. 3.—GRAPES. GUKEL. Omura Collection, Matsue.



FIG. 4.—GRAPES. JIH KUAN. DETAIL. 1231 OR 1291.
Inoue Collection, Tokyo.



FIG. 5 c.—LANDSCAPE (COPY). National Museum, Tokyo.



FIG. 5 b.—WHITE-ROBED KANNON (COPY). National Museum, Tokyo.



FIG. 5 a.—LANDSCAPE (COPY). National Museum, Tokyo.

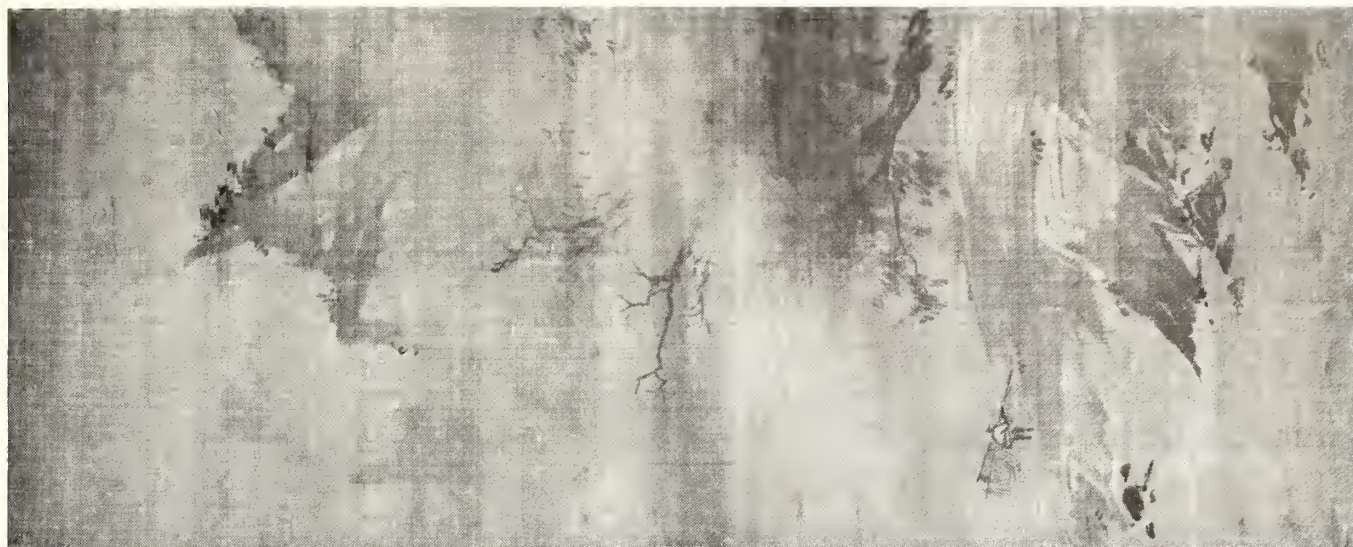


FIG. 6c.—LANDSCAPE—FISHERMAN.
Masuda Collection, Kyoto.

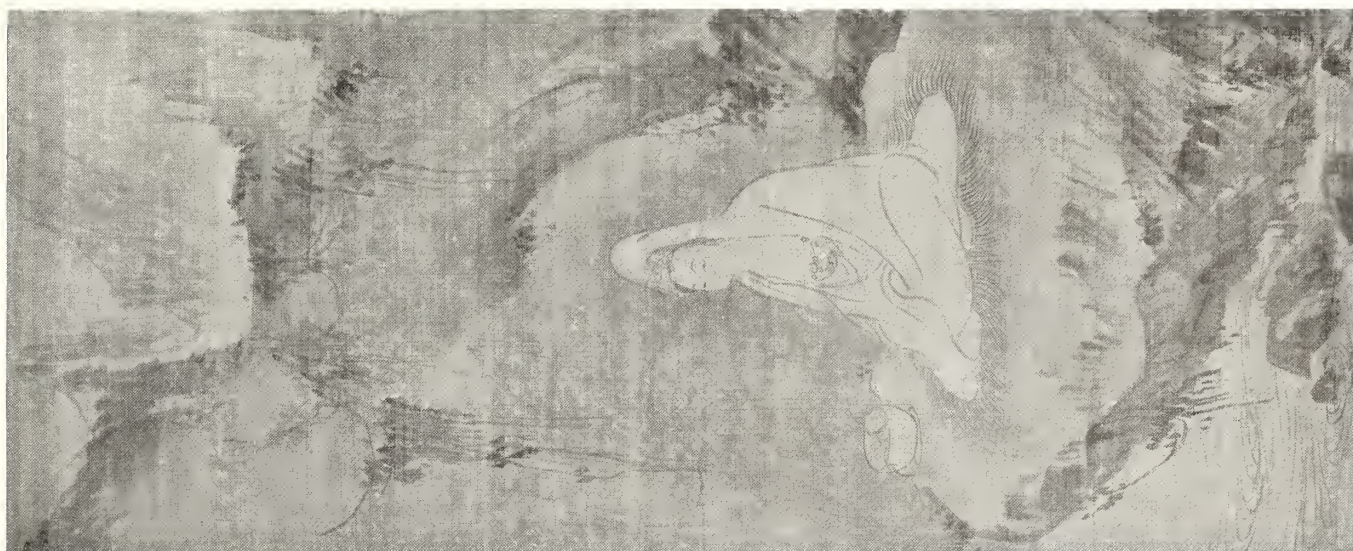


FIG. 6b.—WHITE-ROBED KANNON.
Yamato Bunkakan, Nara.

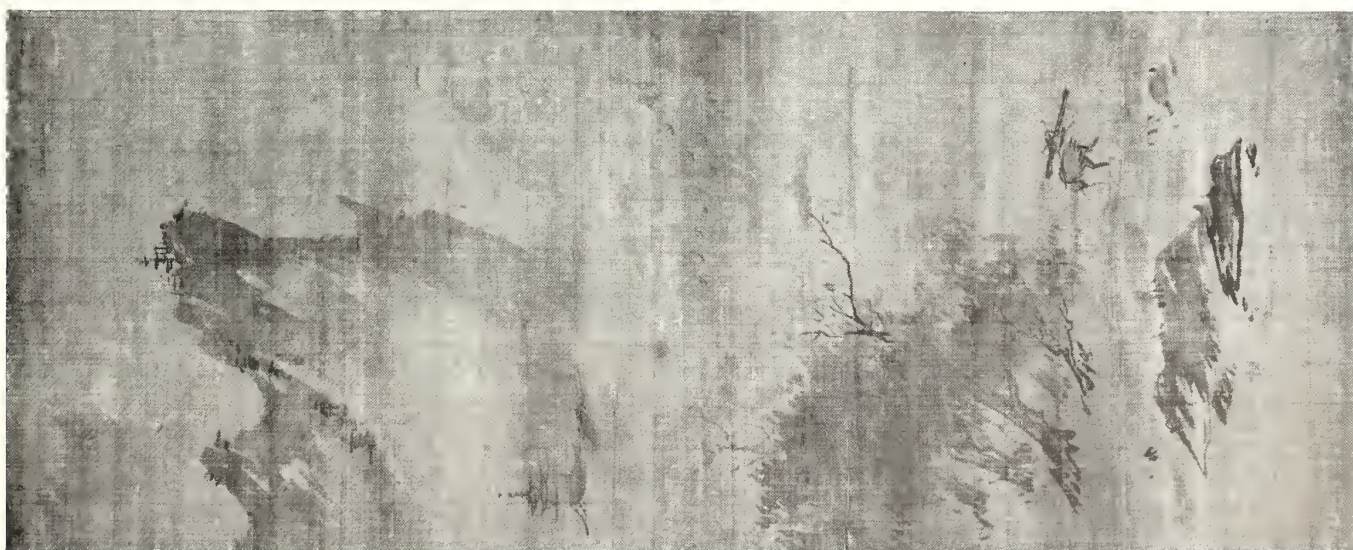


FIG. 6a.—LANDSCAPE—WOODGATHERER.
Masuda Collection, Kyoto.



FIG. 7.—WHITE-ROBED KUAN-YIN (KANNON). MU-CH'I, 13TH CENTURY.
Daitoku-ji, Kyoto.



FIG. 8.—WHITE-ROBED KUAN-YIN (KANNON). BEFORE 1263.
From *Kokka*, 813.



FIG. 9.—SUMMER STORM. AFTER HSIA KUEI.
Private collection, Japan.

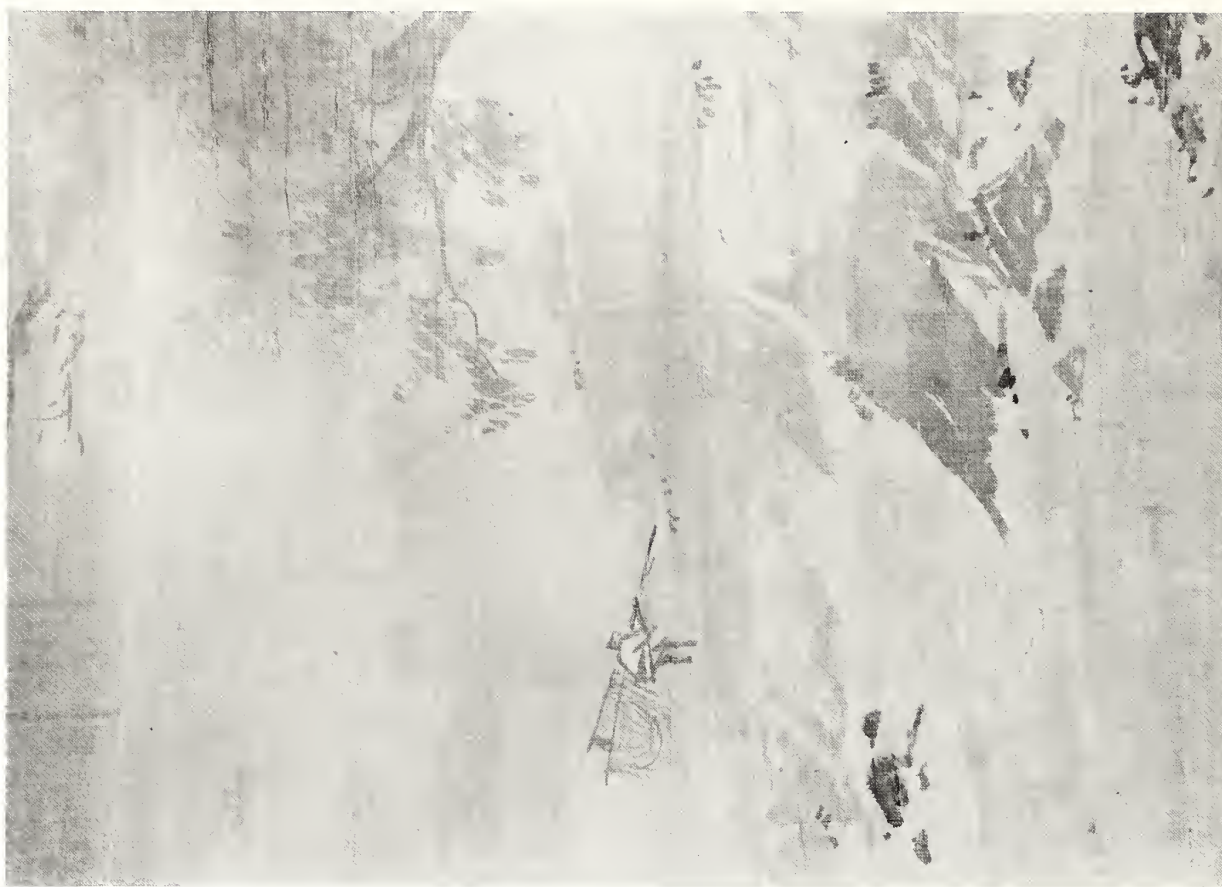


FIG. 11.—DETAIL OF FIGURE 6 c.



FIG. 10.—DETAIL OF FIGURE 6 a.



FIG. 13.—HERMITAGE. LOWER PART OF SCROLL. ATTRIBUTED TO MINCHŌ, 1413.
Konchi-in, Kyoto.

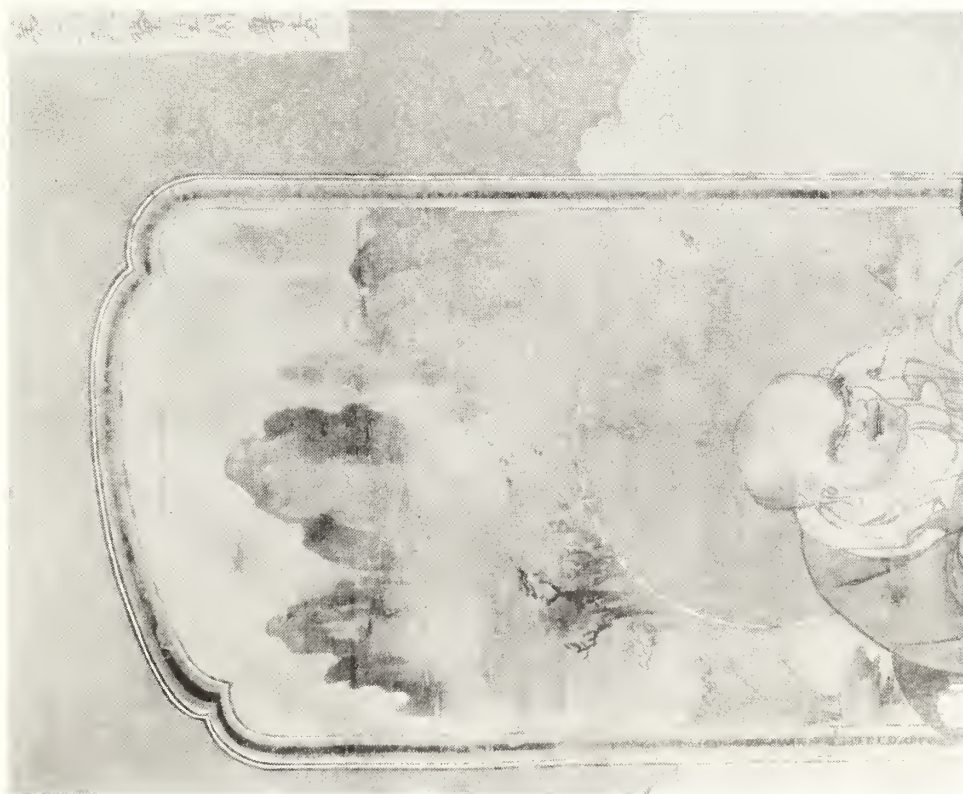


FIG. 12.—RAKAN. TAKUMA EIGA. LATE 13TH-EARLY 14TH CENTURY.
DETAIL OF UPPER PART. Fujita Collection, Osaka.



FIG. 15.—HEAD OF MONJU. DETAIL OF FIGURE 14.

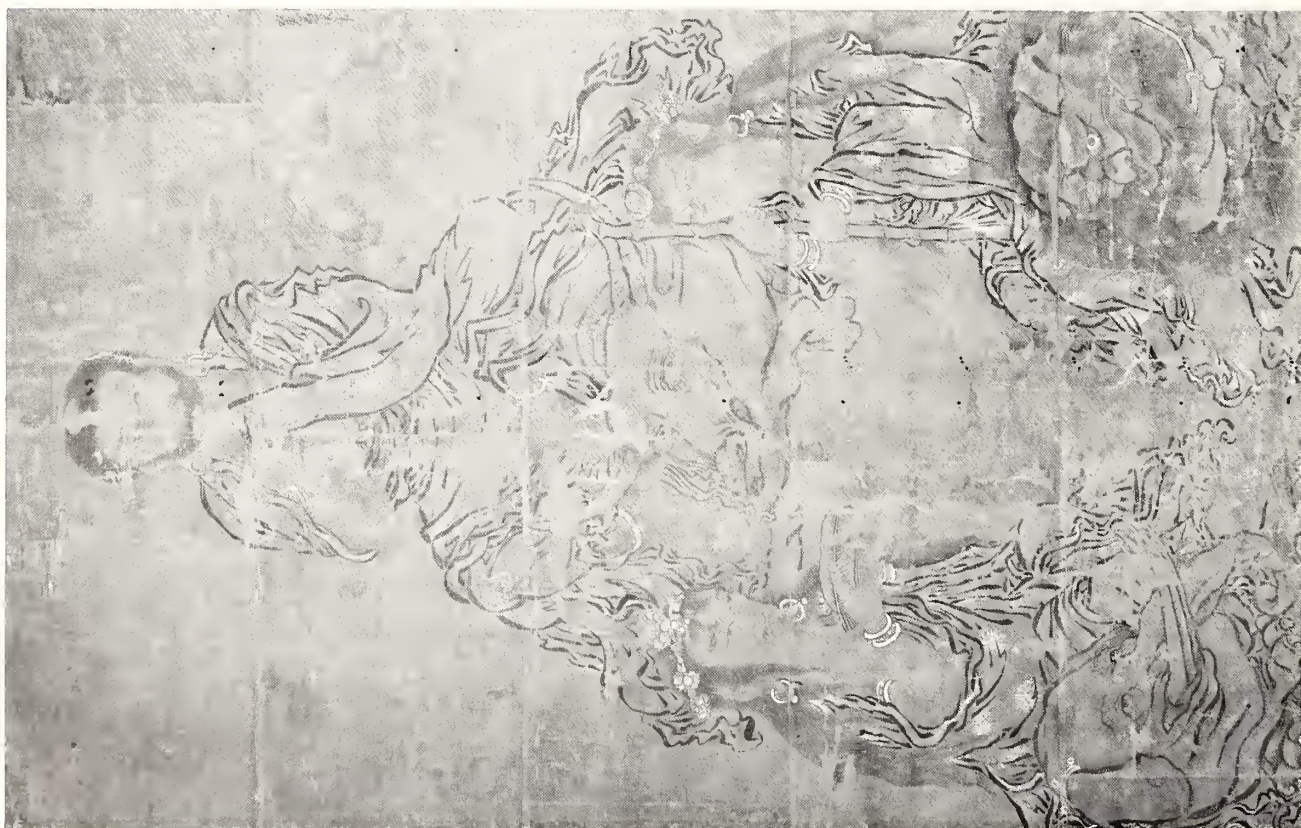


FIG. 14.—SHAKA TRINITY. GUKEL, MANJU-JI.

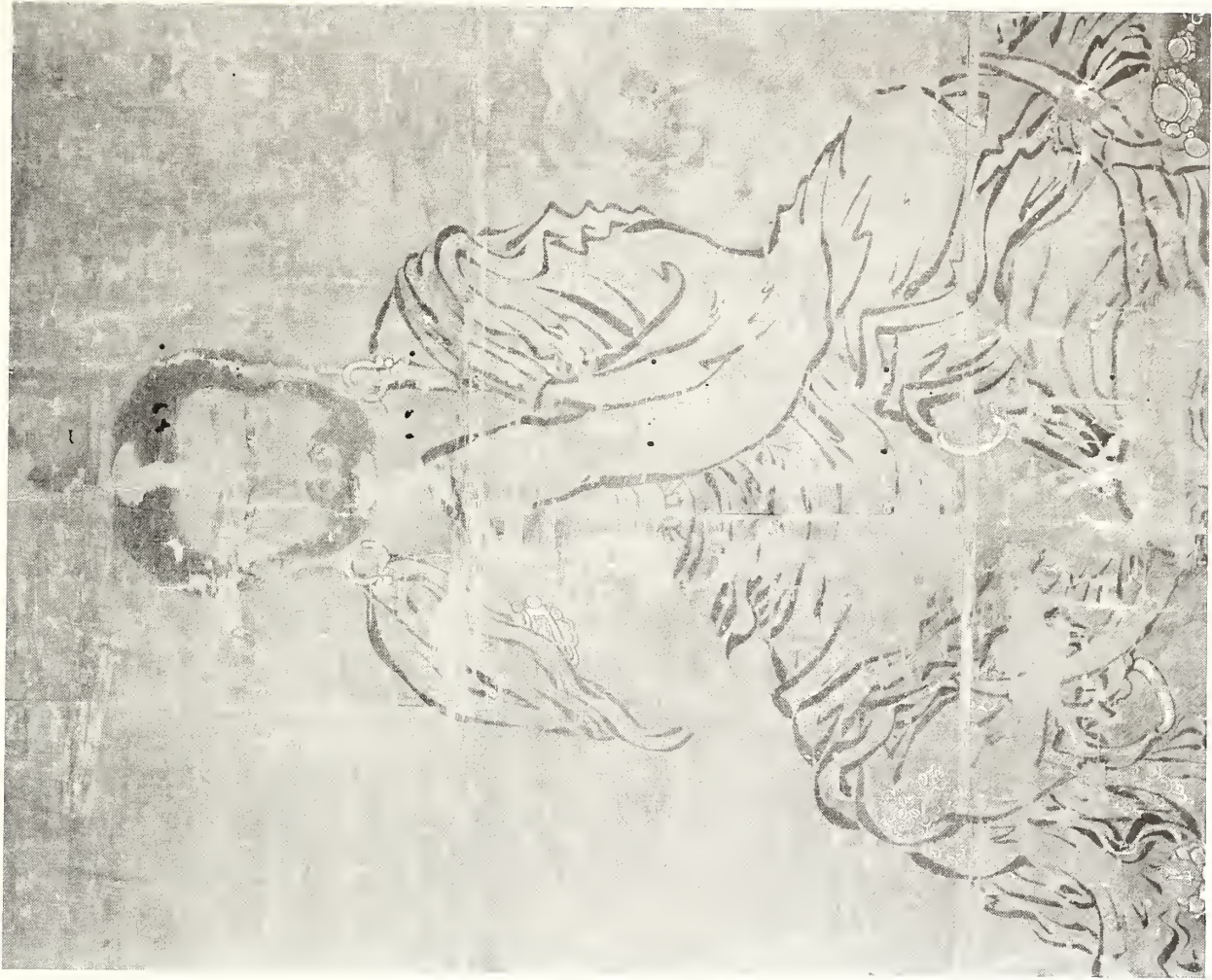


FIG. 17.—SHAKA. DETAIL OF FIGURE 14.



FIG. 16.—SHAKA. 14TH CENTURY. Freer Gallery of Art.

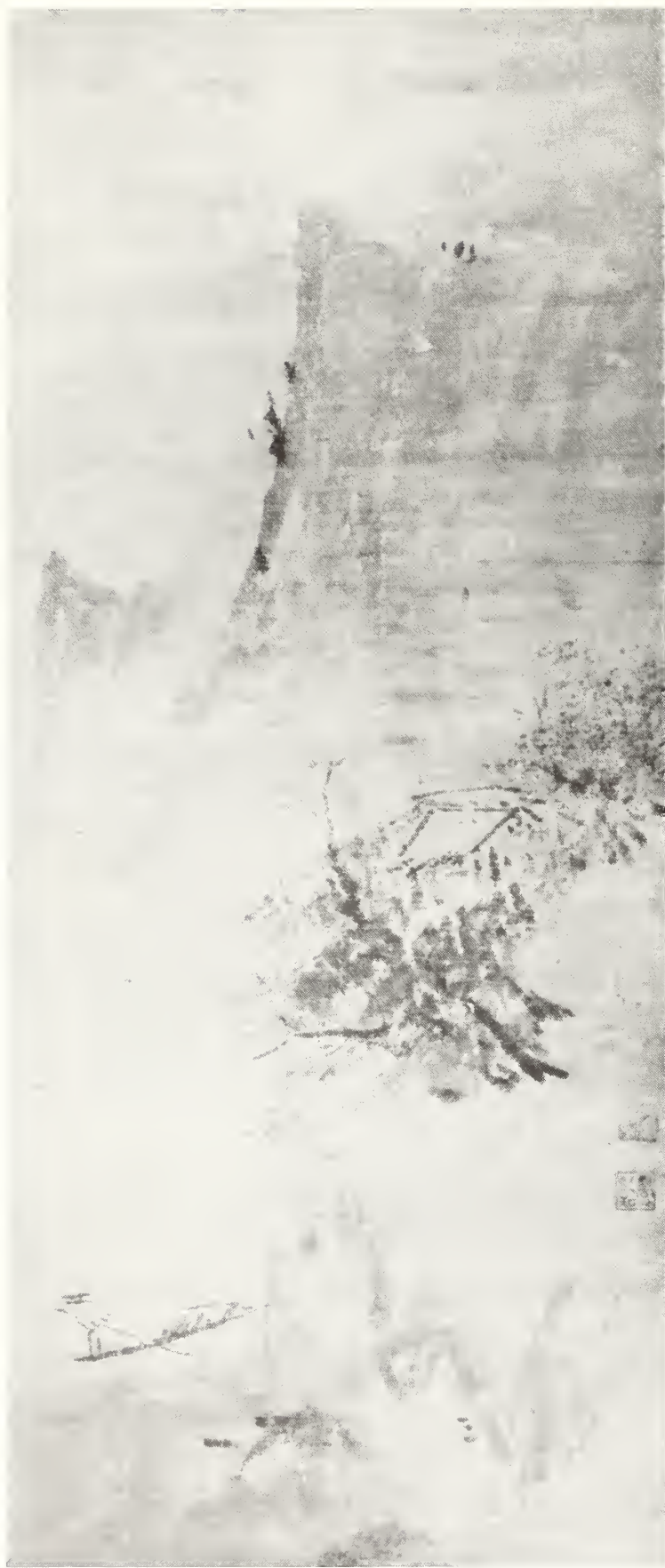


FIG. 18.—LANDSCAPE. FISHERMAN ON A SKIFF. National Museum, Tokyo.

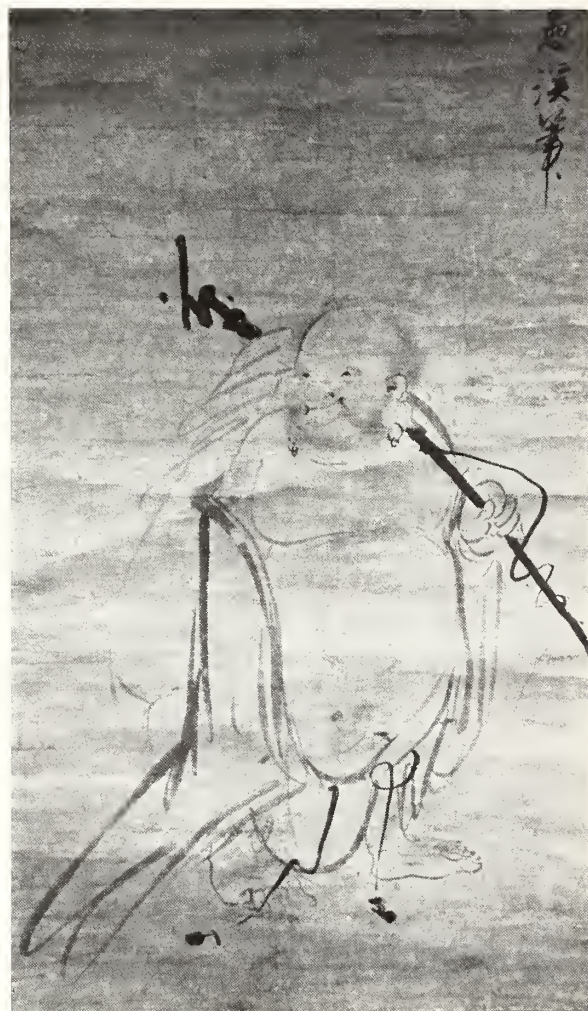


FIG. 19.—HOTEI. GUKEI. Masaki Collection.



FIG. 20.—BHAIA. DETAIL OF KALPAVRIKṢA AND KING. Courtesy of John Rosenfield, Fogg Art Museum.

be a characteristic of ink painting in 14th-century Japan. The somewhat shadowy figure of Takuma Eiga 詫摩榮賀 (late 13th–early 14th century) may indicate the kind of artistic environment from which Gukei came. The background screen of a Rakan painting from the Fujita Collection in Osaka (*fig. 12*)¹² is just this kind of surface landscape; particularly if one were to consider just half of it—the left half—one sees a vertical ink-wash landscape very like one half of the pair of Gukei landscapes—a land promontory at one side, tree accent in the middle distance, high rising far peaks, and the interplay of undefined areas which is the illusion of mist.

Although at first it may not seem too promising a comparison, when we move a little later in the history of Japanese ink painting and view the well-known landscape of a Hermitage from Kyoto's Konchi-in (*fig. 13*), which in one of the inscriptions above it bears a date corresponding to 1413, we can clearly see the connection with an artist like Gukei. We pick out the same basic themes that we have been stressing so often. Here is land suspended over space, or the illusion of water; the scattering of a few foreground rocks; the importance of hut and/or grove as a main focus of interest; the patterns of the ends of bare-branched trees; the far peaks at the top of the composition; and the play of those undefined areas of mist. Greater complexities and firmer notions of both form and space take us logically into the 15th century and perhaps also into the style of a great artist like Minchō 明兆 (1352–1431) to whom the painting is usually attributed; but the relation to the 14th

century and the environment that helped form Gukei is clear.

If then we can begin to place the artistry of Gukei in a familiar Japanese setting of early ink painting, we have yet the problem of his own unique individual style, for there is indeed a particular touch—light, primitive, sketchy, however you may wish to define it—that is personal.

One of the more extraordinary paintings signed with his name is that of the rather large Shaka Trinity from Manju-ji 万寿寺 (*fig. 14*). It measures 4 feet 6.9 inches high and 2 feet 9.7 inches wide.¹³ Here without attempting to wrestle with the rather difficult problem of iconography that pictures Shaka on a bull, hovering above Fugen on his familiar elephant, Monju on his lion, we can comment on the style. The whole, painted on silk and using color, is conceived as a formal icon: Shaka in full face, centrally placed, the apex of a firm triangle whose base is formed by balancing figures of the two lower bodhisattvas. The nature of an icon, or at least its splendor, is reflected in the numerous touches of gold that emphasize the ornamental highlights of jewelry, crowns and brocades.

Yet we cannot approach this as a “normal” religious image, and we are inevitably uncomfortable before it because the busy strokes of the artist's brush, combined with the scattering of gold, destroy notions of stability and calm that familiarity with other Buddhist images—and even the composition of this one—may have led us to expect. While Gukei can present a thin line

¹² *Kokka* 465.

¹³ The dimensions are taken from Shimada, *Kokka* 707, p. 84.

and use it to outline important forms (face, hands, hair) (*fig. 15*), it is clear that he has taken greatest delight in the cascades of electric dark strokes that envelop each figure under the guise of drapery and for which the gold can only be thought of as rather literal and ephemeral flashes of light.

The Freer Gallery of Art possesses a Shaka icon (*fig. 16*) that well may be of this same period (at least it has had an attribution to Ryōzen). Rather damaged, its artist would seem, however, to have been motivated by many of the same ideals as Gukei. Comparing the two (*fig. 17*) we become all the more convinced of Gukei's uniqueness. It is not only a matter of exaggerated drapery patterns; even such a detail as the rather jaunty angle and broken shapes of the Buddha's earrings contrast with the stable circles worn by the Freer Shaka.¹⁴

Gukei's Trinity has the total effect of an image with a strange, overstated intensity. Despite an outward formalism it is ultimately unstable. It reveals a concern with the unsubstantial, a denial of normally solid substance. For Gukei, this was a view that was not only applicable to Buddhas and Bodhisattvas, but with a different type of touch and a different subject could well be said to apply to the thin

landscapes we have just considered, to a bamboo, a sparrow, or a grape.

Here we might briefly return to the original ink landscape in the Tokyo Museum (*fig. 18*), a copy of which has shown that it was one of two paintings flanking a central Kannon. We have already commented on the sketch-like brevities of the central icon. The landscape presents an even more certain informal quality. It would be just to place it beside a final painting, a pure figure sketch and perhaps the briefest of all of Gukei's existing works—a small scroll of Hotei in the Masaki Collection (*fig. 19*) which yet carries with it the distinctive flavor of this artist. A subject for the exercise of full roundness, the notion of plenty and contentment, Gukei has somehow minimized this aspect of Hotei. There are actually here basic forms which are not far from the formal framework according to which he has realized his landscape sketch. Thus the sharp vertical that forms the left edge of the robe is like the drop of a cliff; the abrupt and "unnatural" angle of the hem of the robe (lower left) is an angle comparable to the angled accent (lower left) of the fisherman in his boat in the Tokyo landscape; Hotei's dark stick forms an insistent central diagonal comparable to the dark central diagonal of the landscape's grove of trees: Hotei's head (as we have already suggested about Kannon) takes a position equivalent to the hut in the landscape.

It seems clear that Gukei is working according to a rather special vision. On the one hand he contradicts the "normal" operation of forms. Drapery does not fall easily but according to arbitrary patterns. Landscapes do not offer a logical unfolding of space. Certain elements are almost

¹⁴ A Shaka in most respects extremely close to the Freer example, and in this case part of a triptych depicting Fugen and Monju as well, comes from Tōfukuji in Kyoto. The main difference is that instead of the rough bearded face is a smooth idealized countenance of a more traditional image. Unless there has been repainting, it suggests a source for Gukei's imagery. *To So Gen Min meiga taikan*, Tokyo, 1929, 20.

abruptly selected and given sudden or brief definition—sometimes as thin ink, sometimes as strong black staccato accents.

From one viewpoint one might place Gukei's art as part of a tradition of gifted amateurs who were in the 14th century becoming more and more familiar with what had become an international style. Yet to see its characteristic arbitrary informalities as essentially failings from the viewpoint of sure art is, I suspect, to miss the positive aspects of Gukei's painting. A clue to his real motivation lies in a reconsideration of what Gidō, the contemporary recorder of the priestly world of 14th-century Kamakura, wrote in Ue Gukei's epitaph (*mei* 銘) that was mentioned at the beginning of this paper:¹⁵

A pupil of the master priest, Tesshu 鉄舟, of Kyoto's Man-ju 万寿 (Temple) is called, E 慧 ("Skillful") and he labelled his dwelling, Genan 幻菴 ("hut of *maya*"). He asked Kuge 空華 (Gidō) to write his epitaph.

And I (Gidō) told him:

"An 庵 (Gukei) is *maya*. Kuge (Gidō) is also *maya*. You and I are both *maya*. Thus, of what use is an epitaph?"

(He replied:)

"Have you not heard of Kegon's 華嚴 ranks of the enlightened? That there

were the two youths, Te-sheng 德生 and Yu-te 有德, the boy and the girl,¹⁶ who attained the state of a Bodhisattva who abiding in *maya* reaches enlightenment. In that state one perceives all worlds as *maya*, and yet one (continues to) abide in them. I constantly nurture this outlook. All together all Buddhas and all living things, all regions and holy places, all flowers, trees, groves and their like—these are what I in my *maya*-hut (*gen-an*) constantly live among. Can you not then take up the brush of *maya* and write an epitaph of *maya*?"

I thus gathered up his words and wrote this epitaph:

"Where a Buddhist lives *maya* is his hut. It is not reeds and it is not grass; nor fibers, nor moss. In *maya* is his strength. All forms, ten-thousand things, are intermingled. Whether the *maya* of Buddhas and patriarchs; whether the *maya* of demons and immortals; whether the *maya* of grass and trees; or the *maya* of mountains and streams; that which is long and that which is short; that which is square, that which is round, that which flies, that which walks, that which is beautiful and that which is ugly—all such things are *maya*; and all are thus seen by (U-) E ('skill'). Every

¹⁵ Reprinted by Professor Shimada, *Kokka* 707, p. 84, the epitaph and introduction can be found in the context of Gidō's *Kugesbū*, Kamimura Kankō (compiler), *Gozan bungaku zenshū* 五山文學全集 ("Collection of Literature of the 'Five Mountains'" — from Kamakura and Muro-machi periods), 5 vols., Tokyo, 1936, vol. 2, ch. 12,

pp. 1012–3. In these two printings there are slight, usually minor, variations.

¹⁶ Two of the so-called 53 enlightened ones mentioned in the *Ju-fa chieh* 入法界 chapter of the Hua-yen (Kegon) 華嚴 Sutra, Soothill, p. 114, *Fo-hsüeh ta tz'u-tien* 佛學大辭典, Taipei 1956, p. 494.

sort of phenomenon, from the vastness of Buddha-worlds to the tiniest hair-tip. And although worlds are destroyed, his hut remains firm. And though he reach the limits of space, his hut is unchanged—dwelling in the truth of *maya*. Who is this Buddhist? He is (U-) E Gukei 慧愚溪 ('skilled-stupid-stream').

The mountain rains begin to cease; the evening sun is in the west.¹⁷ Kuge (Gidō) has written this epitaph, has left the track of a bird on the snow.

It would not seem entirely fortuitous that in our analysis of Gukei's paintings we have seen a parallelism between the placing of a head in a Buddhist figure composition and the placing of hut and grove in a landscape. Gukei adopted the

name, Genan, "Hut of Maya." The centralized fact of Buddha-consciousness (mind) shatters the illusory appearance of the world; "... worlds are destroyed, his hut remains firm."

It is perhaps fitting also to speculate further. Over twenty years ago Heinrich Zimmer wrote feelingly about the famous early Buddhist reliefs at Bhaja (*fig. 19*) as suggesting "the apparition of living forms out of formless primal substance" as illustrating "the phenomenal, mirage-like character of all existence, earthly and divine."¹⁸ Thus one of the most important surviving examples of early Buddhist sculpture in ancient India was associated with the notion of Maya. Some 1500 years later in a distant and different corner of Asia, Gukei's art speaks of similar beginnings, yet he would, I believe, insist that it also dealt with positive ends.

¹⁷ *Gozan bungaku zenshū* renders the passage 在西 "in the west." Shimada's printing 東西 "east and west" may have something mysterious to do with Zen, but I have accepted the logic of the former.

¹⁸ Heinrich Zimmer, *Myths and Symbols in Indian Art and Civilization*, Washington, D. C., 1946, p. 54.

A CORRECTION

BY JAMES CAHILL

I have recently been made aware that in writing about the last years of the painter Yüan Chiang¹ I fell into one of the myriad traps that the Chinese language sets for the insufficiently learned or cautious. It appears, as I found in reading a colophon on a painting in which the same name was used, that Yüan Chiang 袁江, the name of the artist, is also the name of a river in Kiangsi Province.² The passage I quoted from the inscription by Chang Ts'ung-ts'ang should thus read: "... painted at the

Duckweed Flower Library on the Yüan River" rather than "... at Yüan Chiang's Duckweed Flower Library." The use of the personal name in such a context would have been very odd anyway, as I should have realized. There is thus no evidence that Yüan Chiang did, as I suggested, leave the court and return to the south in his late years. My observations on the style of his late works, of course, are not affected by this correction, which has to do only with his physical whereabouts at that time.

¹ "Yüan Chiang and His School," Part II, *Ars Orientalis* VI, 1966, p. 209.

² *Chung-kuo ku-chin ti-ming ta-tz'u-tien*, p. 753. Its source is near P'ing-hsiang-hsien 萍鄉縣, whence it flows northwest and finally joins the Yangtze River. It is known also under several other names.

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